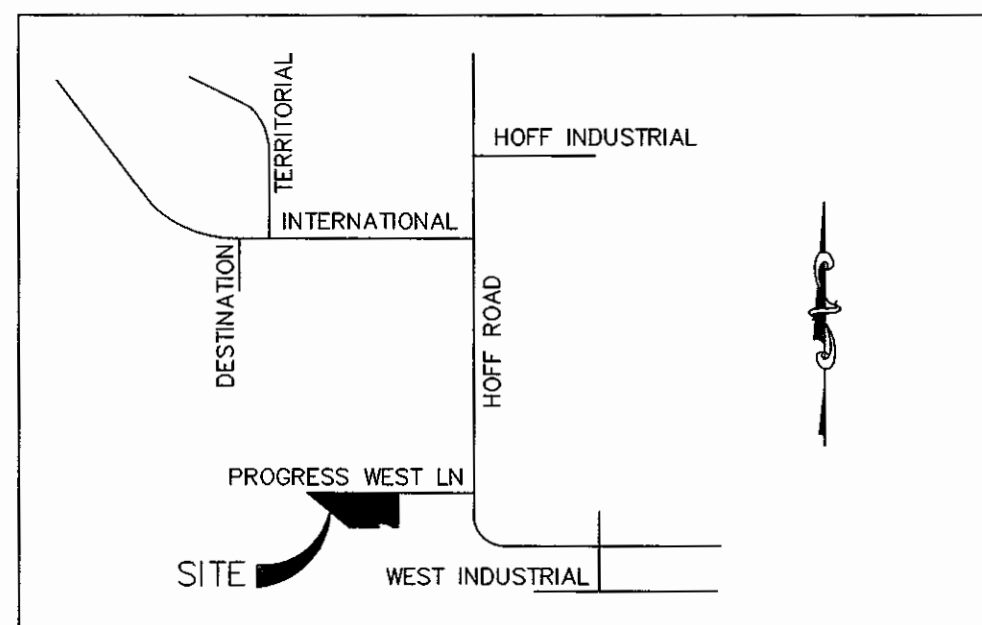


Plan View



Locator Map

A SET OF CONSTRUCTION PLANS FOR Renovations for the City of O'Fallon Environmental Services Building

A TRACT OF LAND BEING ALL OF LOT 1 OF "PROGRESS WEST INDUSTRIAL PARK" AS RECORDED IN PLAT BOOK 27, PAGE 35, WITHIN FRACTIONAL SECTION 26, TOWNSHIP 47 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

Development Notes:

- AREA OF TRACT: 4.07 ACRES (WITHOUT RIGHT-OF-WAY DEDICATION)
- THIS PROPERTY IS A PART OF THE PROPERTY REFERENCED AS PARCEL I.D. NUMBER 2-0058-6252-00-0001.0000000 OF THE ST. CHARLES COUNTY ASSESSOR'S OFFICE.
- SITE ADDRESS: 1550 PROGRESS WEST LANE, O'FALLON, MISSOURI 63366
- EXISTING ZONING: I-2 HEAVY INDUSTRIAL DISTRICT, CITY OF O'FALLON
- PROPOSED USE: OFFICE WAREHOUSE FOR PARKING & MAINTENANCE OF ENVIRONMENTAL SERVICES TRUCKS
- OWNER: BENNETT LAND HOLDINGS LP, 1700 W. TERRA LANE, O'FALLON, MISSOURI 63366-2310
- SITE COVERAGE: SITE = 177,470 SQ. FT. (4.07 ACRES), EXISTING BUILDING = 54,283 SQ. FT. = 19%, TOTAL PAVEMENT = 69,039 SQ. FT. = 38%, TOTAL GREENSPACE = 74,148 SQ. FT. = 42%
- WE HAVE DETERMINED THE HORIZONTAL LOCATION OF THIS TRACT OF LAND IN ST. CHARLES COUNTY, MISSOURI, BY SCALING THE PROPERTY IN REFERENCE TO THE FOLLOWING FLOOD INSURANCE RATE MAP (FIRM), ST. CHARLES COUNTY, MISSOURI AND INCORPORATED AREAS, MAP NUMBER 29183C0220G, COMMUNITY PANEL NUMBER (CITY OF O'FALLON, 290316 0220 G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2016). BY EXPRESS REFERENCE TO THIS MAP AND ITS LEGEND, THIS TRACT OF LAND IS INDICATED TO BE WITHIN THE FOLLOWING ZONE:

ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

Utility Contacts

Sanitary Sewer
City of O'Fallon
100 N. Main St.
O'Fallon, MO 63366
Contact: 636-281-2858

Water
City of O'Fallon
100 N. Main St.
O'Fallon, MO 63366
Contact: 636-281-2858

Electric
Ameren UE
200 Callahan Road
Wentzville, MO 63385
636-639-8312

Gas
Laclede Gas Company
6400 Graham Road
St. Louis, MO 63134
314-522-2297

Telephone
Centurylink
1151 Century Tel Dr.
Wentzville, MO 63385
636-332-7261

Charter Communications
941 Charter Commons
Town & Country, MO 63017
1-888-438-2427

Fire Department
O'Fallon Fire Protection District
119 E. Elm St.
O'Fallon, MO 63366
636-272-3493

Benchmarks Project

* City of O'Fallon Construction work hours per City Ordinance 3429 as shown in section 500.420 of the Municipal Code of the City of O'Fallon are as follows:

October 1 through May 31
7:00 A.M. To 7:00 P.M. Monday Through Sunday
June 1 Through September 30
6:00 A.M. To 8:00 P.M. Monday Through Friday
7:00 A.M. to 8:00 P.M. Saturday and Sunday

* The area of this phase of development is 4.07 acres.
The area of land disturbance is 3.40 Acres
Number of proposed lots is one.

Building setback information: Front = 30 feet
Side = 25 feet
Rear = 50 feet

Minimum Lot Width = 75 feet
Minimum Lot Area = 5 acres, unless Industrial District
Maximum Lot Coverage = 50% by structure
Maximum Height = 50 feet

* The estimated sanitary flow in gallons per day is 780

* Parking calculations
Office: 1 space per 300 sq. ft. floor space
Warehouse & Storage Facility: 1 space per employee

3,659 sq. ft./300 sq. ft. x 1 space = 12.20 spaces
3 employees x 1 space = 3 spaces

Required parking spaces = 16 spaces
Provided parking spaces = 38 spaces (including 2 accessible spaces plus an additional 25 truck parking spaces to the south and west of the building.)

Loading Spaces: 1 space for gross floor area exceeding 5,000 sq. ft. and 1 space per additional 20,000 sq. ft. gross floor area
1 space + (34,283 sq. ft. - 5,000 sq. ft.)/20,000 sq. ft. x 1 space = 3 spaces

Required loading spaces = 3 spaces
Provided loading spaces = 3 spaces

* Tree preservation calculations
Tree Preservation Requirements: 20% of existing trees or 15 trees per acre (whichever is greater) shall be preserved.
Required Tree Preservation = 18 trees x 0.20 = 3.6 trees
= 0.67 acres trees x 0.20 = 0.13 acres trees
Provided Tree Preservation = 16 trees (89%)
= 0.67 acres - 0.51 acres tree removal
= 0.16 acres trees preserved (24%)

* Landscaping Requirements:
1 tree per 40 feet street frontage
439.83 feet street frontage (excludes entrances)/40 feet x 1 tree
Required Trees = 11 trees
Provided Trees = 3 new trees + 8 existing trees

1 tree per 4,000 sq. ft. of landscaped open space
0.16 acres (24%) trees preserved. No additional trees proposed.

Interior Landscape Area = 6% minimum interior parking lot
0.06(38 spaces x 270 sq. ft.) = 615.60 sq. ft. Interior Landscape Area

Total Interior Landscape Area Provided = 1,152.31 sq. ft.

MODOT VRS STATION PRS1258813930
ELEVATION=497.01 - NAVD 1988

Site

INDICATED ON PLANS

Grading Quantities:

3,600 C.Y. CUT (INCLUDES SUBGRADE)
1,500 C.Y. FILL (INCLUDES 8% SHRINKAGE)
2,100 C.Y. HEAVY

INCLUDES YARDAGE OF PAVEMENT TO BE REMOVED AND EXPORTED FROM SITE. SEE DEMOLITION PLAN FOR REMOVAL OF EXCESS CUT FROM SITE. THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

City approval of any construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning codes.
All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, they shall make such changes at their own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvement so as to conform to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City Inspector.
Lighting values will be reviewed on site prior to the final occupancy inspection.

Legend

600.00	EXISTING LABELS	U/P	USE IN PLACE
600.00	PROPOSED LABELS	TBR	TO BE REMOVED
CI	SINGLE CURB INLET	[Symbol]	EXIST. SINGLE CURB INLET
DCI	DOUBLE CURB INLET	[Symbol]	EXIST. AREA INLET
AI	AREA INLET	[Symbol]	PROPOSED SINGLE CURB INLET
DAI	DOUBLE AREA INLET	[Symbol]	PROPOSED AREA INLET
GI	GRATE INLET	[Symbol]	PROPOSED GRATE INLET
DGI	DOUBLE GRATE INLET	[Symbol]	EXIST. SANITARY MANHOLE
MH	MANHOLE	[Symbol]	EXIST. STORM MANHOLE
EP	END PIPE	[Symbol]	PROPOSED MANHOLE
CP	CONCRETE PIPE	[Symbol]	POWER POLE
RCP	REINFORCED CONCRETE PIPE	[Symbol]	GUY WIRE
CMP	CORRUGATED METAL PIPE	[Symbol]	LIGHT STANDARD
CPP	CORRUGATED PLASTIC PIPE	[Symbol]	FIRE HYDRANT
PVC	POLY VINYL CHLORIDE (PLASTIC)	[Symbol]	WATER METER
CO	CLEAN OUT	[Symbol]	WATER VALVE
[Symbol]	SLOPE LIMITS	[Symbol]	GAS VALVE
[Symbol]	DRAINAGE SWALE	[Symbol]	TELEPHONE PEDESTAL
[Symbol]	EXISTING STORM SEWER	[Symbol]	SIGN
[Symbol]	EXISTING SANITARY SEWER	[Symbol]	TREE
[Symbol]	EXISTING WATER LINE	[Symbol]	
[Symbol]	EXISTING FIBER OPTIC LINE	[Symbol]	
[Symbol]	EXISTING GAS LINE	[Symbol]	
[Symbol]	EXISTING UNDERGROUND ELECTRIC	[Symbol]	
[Symbol]	EXISTING OVERHEAD ELECTRIC	[Symbol]	
[Symbol]	EXISTING CABLE TV LINE	[Symbol]	
[Symbol]	EXISTING TELEPHONE LINE	[Symbol]	
[Symbol]	PROPOSED STORM SEWER	[Symbol]	
[Symbol]	PROPOSED SANITARY SEWER	[Symbol]	
[Symbol]	FENCE LINE	[Symbol]	
[Symbol]	SAWCUT LINE	[Symbol]	

Drawing Index

- COVER SHEET
- COMMERCIAL NOTES
- DEMOLITION PLAN
- SITE PLAN
- GRADING PLAN
- PROFILES
- EXISTING DRAINAGE AREA MAP
- PROPOSED DRAINAGE AREA MAP
- DETAILS
- DETAILS

Conditions of Approval From Planning and Zoning

- The Landscape Plans for the interior landscape area shall be submitted with Construction Plans.
- The rear one-way drive aisle shall have a minimum width of 19 feet. Although the covered truck wash is not a part of this site plan, consideration should be given to the drive aisle width with respect to its future location.
- The size of the truck parking spaces shall be configured so that trucks do not encroach into the minimum drive aisle.

CITY OF O'FALLON
COMMUNITY DEVELOPMENT DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: _____ DATE _____
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN



CALL BEFORE YOU DIG!
1-800-DIG-RITE

PROJECT TITLE:
RENOVATIONS FOR THE
CITY OF O'FALLON
ENVIRONMENTAL
SERVICES BUILDING

Box Project # 06-8742A Issue Date: 07/22/2016

ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5562
FAX 928-1718



DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet. I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering work herein.



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Civil Engineer
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Engineering Authority No. 000655
Surveying Authority No. 000144
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REVISIONS

NO.	DATE	DESCRIPTION
08-19-16		CITY COMMENTS
08-31-16		ADDENDUM 1

Developer / Owner:
CITY OF O'FALLON
100 N. MAIN STREET
O'FALLON, MO 63366
636-379-5513

COVER SHEET

P+Z No. #05-11.01
Approved 06-02-16
City No. #

Page No. 1 of 10

COMMERCIAL

GENERAL NOTES

- GN # 1 Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet curbs
GN # 2 Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage.
GN # 3 Truncated domes for curb ramps located in public right of way shall meet ADA requirements and shall be constructed using red pre cast truncated domes per pavement details.
GN # 4 Any proposed pavilions or playground areas will need a separate permit from the Building Division.
GN # 5 The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities.
GN # 6 All proposed utilities and/or utility relocations shall be located underground.
GN # 7 All proposed fencing requires a separate permit through the Planning and Development Division.
GN # 8 All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
GN # 9 All free standing signs shall be located a minimum of ten (10) feet away from any right of way line and/or property line and a minimum of three (3) feet from the back of curbing or sidewalk.
GN #10 All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
GN #11 Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations.
GN #12 Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
GN #13 The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.

Erosion Control Notes

- EN # 1 The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area.
EN # 2 All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-half inch of rain or more.
EN # 3 Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with St. Charles County Soil and Water Conservation District Erosion and Sediment Control guidelines.
EN # 4 This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines.
EN #5 Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities.
EN #6 All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99.
GN # 3 The surface of the fill shall be finished so it will not impound water.
GN # 4 All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.
GN # 5 When grading operations are complete or suspended for more than 14 days, permanent grass seeding periods, temporary cover shall be provided according to St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
GN # 6 No slopes shall exceed 3 (horizontal): 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.
GN # 7 All low places whether on site or off shall be graded to provide drainage with temporary ditches.
GN # 8 All existing wells on site shall be capped per DNR standards.

Grading Notes

- GRN #1 Developer must supply City construction inspectors with soil reports prior to and during site grading.
STM # 1 All Storm Sewer installation is to be in accordance with M.S.D. 2007 standards and specifications except as modified by the City of O'Fallon ordinances.
STM # 2 Brick shall not be used in the construction of storm sewer structures.
STM # 3 A 5/8" trash bar shall be installed horizontally in the center of the opening(s) in all curb inlets and area inlets.
STM # 4 HDPE pipe is to be N-12WT or equal and to meet ASTM F1417 water tight field test.
STM # 5 Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer.
STM # 6 The storm sewers should run diagonally through the side yards to minimize any additional utility easements required.
STM # 7 All concrete pipes will be installed with O-ring rubber type gaskets.
STM # 8 Connections at all storm structures are to be made with A-lock joint or equal.
STM # 9 Pre cast concrete inlet covers are not to be used.
STM #10 The swale in the detention basins shall have a minimum 1% longitudinal slope and be lined with a permanent erosion control blanket that will allow infiltration of storm water.
STM #11 All storm sewer shall be reinforced concrete pipe or H.D.P.E. pipe.
STM #12 The discharge point of all flared end sections shall be protected by rip rap or other approved means.
STM #13 Rip rap shown at flared end sections will be evaluated in the field by the Engineer, Contractor, and City Inspectors after installation for effectiveness and field modified, if necessary to reduce erosion on and off site.
STM #14 Add 1" minus rock back fill to all storm sewer that lie within the 1:1 shear plane of the road.
WN # 1 Fire hydrants shall be a maximum of 600' apart.
WN # 2 Coordinate with the water company on the location of water meters.
WN # 3 All water main must have a minimum of 42" of cover.
WN # 4 Provide water valves to isolate the system.
WN # 5 All water mains shall be class 200 SDR 21 or equal with locator/tracer wires
WN # 6 DISINFECTING:
Disinfecting shall be accomplished by placing sufficient hypo chlorite granule (HTH) in each section of pipe to achieve a chlorine residual in the pipeline, upon initial filling, of 50 mg/L (PPM).
WN # 7 PRESSURE TESTING:
Immediately following disinfection, the piping shall be pumped to a pressure (at the lowest point in the project) of 150 psi or higher where the working pressure is higher than 150 PSI as determined by the City.
WN # 8 All tops for valves, meters, and manholes are to be constructed to within 1 inch (0.08') of finish grade.

Grading Notes Continued

- GRN #10 All trench back fills under paved areas shall be granular back fill, and compacted mechanically.
a) Depth, Trench back fills less than 8 feet deep shall be probed to a depth extending half the depth of the trench back fill, but not less than 3 feet.
b) Equipment, The jetting probe shall be a metal pipe with an interior diameter of 1.5 to 2 inches.
c) Method, Jetting shall be performed from the lowest surface topographic point and proceed toward the highest point, and from the bottom of the trench back fill toward the surface.
d) Surface Bridging, The contractor shall identify the locations of the surface bridging (the tendency for the upper surface to crust and arch over the trench rather than collapse and consolidate during the jetting process).
GRN #11 Site grading.
a. Within City right-of-way.
b. Outside of City right-of-way.

Sanitary Sewer Notes

- SAN # 1 All sanitary sewer installation is to be in accordance with M.S.D. 2007 standards and specifications except as modified by the City of O'Fallon Ordinances.
SAN # 2 Brick shall not be used in the construction of sanitary sewer structures.
SAN # 3 Connections at all sanitary structures are to be made with A-Lock joint or equal
SAN # 4 All sanitary laterals shall be a minimum of 4" residential, 6" commercial diameter pipe.
SAN # 5 All sanitary mains shall be a minimum of 8" diameter pipe.
SAN # 6 All sanitary sewer line with a slope greater than 20% will require concrete cradle or concrete collar.
SAN # 7 All manholes built within the 100 year flood plain must have lock type watertight manhole covers.
SAN # 8 All sanitary sewer mains must have a minimum of 42" cover.
SAN # 9 When sanitary mains cross over storm line the sanitary main must be ductile iron pipe for 10 feet on each side of the crossing.
SAN #10 Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer.
SAN #11 The sanitary sewers should run diagonally through the side yards to minimize any additional utility easements required.
SAN #12 All sanitary sewer structures shall be waterproofed on the exterior in accordance with Missouri DNR specifications 10CSR-8.120 (7)(E).
SAN #13 All sanitary sewer pipe shall be SDR35 or equal.
SAN #14 All sanitary sewer manholes and pipes will be tested to the following specifications.
SAN #15 Add 1" minus rock back fill to all sanitary sewer and all other utilities that lie within the 1:1 shear plane of the road.

Storm Sewer Notes

- STM # 1 All Storm Sewer installation is to be in accordance with M.S.D. 2007 standards and specifications except as modified by the City of O'Fallon ordinances.
STM # 2 Brick shall not be used in the construction of storm sewer structures.
STM # 3 A 5/8" trash bar shall be installed horizontally in the center of the opening(s) in all curb inlets and area inlets.
STM # 4 HDPE pipe is to be N-12WT or equal and to meet ASTM F1417 water tight field test.
STM # 5 Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer.
STM # 6 The storm sewers should run diagonally through the side yards to minimize any additional utility easements required.
STM # 7 All concrete pipes will be installed with O-ring rubber type gaskets.
STM # 8 Connections at all storm structures are to be made with A-lock joint or equal.
STM # 9 Pre cast concrete inlet covers are not to be used.
STM #10 The swale in the detention basins shall have a minimum 1% longitudinal slope and be lined with a permanent erosion control blanket that will allow infiltration of storm water.
STM #11 All storm sewer shall be reinforced concrete pipe or H.D.P.E. pipe.
STM #12 The discharge point of all flared end sections shall be protected by rip rap or other approved means.
STM #13 Rip rap shown at flared end sections will be evaluated in the field by the Engineer, Contractor, and City Inspectors after installation for effectiveness and field modified, if necessary to reduce erosion on and off site.
STM #14 Add 1" minus rock back fill to all storm sewer that lie within the 1:1 shear plane of the road.

Water Notes

- WN # 1 Fire hydrants shall be a maximum of 600' apart.
WN # 2 Coordinate with the water company on the location of water meters.
WN # 3 All water main must have a minimum of 42" of cover.
WN # 4 Provide water valves to isolate the system.
WN # 5 All water mains shall be class 200 SDR 21 or equal with locator/tracer wires
WN # 6 DISINFECTING:
Disinfecting shall be accomplished by placing sufficient hypo chlorite granule (HTH) in each section of pipe to achieve a chlorine residual in the pipeline, upon initial filling, of 50 mg/L (PPM).
WN # 7 PRESSURE TESTING:
Immediately following disinfection, the piping shall be pumped to a pressure (at the lowest point in the project) of 150 psi or higher where the working pressure is higher than 150 PSI as determined by the City.
WN # 8 All tops for valves, meters, and manholes are to be constructed to within 1 inch (0.08') of finish grade.

Water Notes

- WN #10 BACTERIOLOGICAL TESTING:
After satisfactory disinfection and pressure testing, a sample shall be taken by the contractor in the presence of a City representative and submitted to a laboratory approved by the Missouri Department of Natural Resources and the City for bacteriological analysis.
A second sample shall be taken in a like manner and submitted for analysis.
The two samples taken on consecutive days a minimum of 24 hours apart, must be found to be "safe" by the testing laboratory, and copies of the test results must be supplied to the City.

Roadway Notes

- RN # 1 All paving (public and private) to be in accordance with 2006 St. Charles County Standards and Specifications except as modified by the City of O'Fallon ordinances.
RN # 2 If the intersecting road does not have a curb, then the curb on the new entrance shall begin 10' from the edge of the existing road.
RN # 3 Provide 6" of concrete over 4" of MoDot type 1 or type 5 aggregate rock or asphalt equivalent for minor residential streets per City Code 405.370.
RN # 4 Multi-use trail (when required) shall have a minimum of 3" Type "C" Asphalt over 4" aggregate base per City requirements.
RN # 5 Type C (BP-1) Compaction requirements shall be 98% minimum density according to St. Charles Co. Standard Specifications.
RN # 6 Provide pavement striping at any point where the multi-use trail crosses existing or proposed pavement.
RN # 7 All street stub-outs over 250' in length will require a temporary turnaround.
RN # 8 All sub grade in cut or fill will need to conform to the City of O'Fallon Compaction requirements.
RN # 9 Material Testing And Frequency.
1. Concrete.
a. Cylinders/compressive strength.
b. Percent air and temperature.
c. Slump.
d. If concrete is batched from more than one (1) plant, then the aforementioned guidelines will be applicable to each plant.
2. Sub grade and base.
a. Proof roll as described in Section 405.210(B).
b. One (1) compaction test per two hundred fifty (250) feet of mainline paving, three (3) tests per intersection, five (5) tests within cul-de-sacs and one (1) test per repair slab.
c. Gradation test for sub base material.
3. Asphalt.
a. One (1) set of compaction tests per two hundred fifty (250) feet of mainline.
b. One (1) bulk density test per paving operation.
RN #10 Approval Of Sub grade And Base (Sub base).
RN #11 In all fill areas in the roadways, soil tests shall be submitted and approved by the City Engineer for each foot of fill and at least one (1) test and an average of one (1) test within every two hundred fifty (250) feet.
RN #12 No traffic will be allowed on new concrete pavement until it has cured for seven (7) days and it reaches three thousand five hundred (3,500) psi within 28 days.
RN #13 Prior to placement of aggregate base material on sub grade and prior to placement of pavement by base material, the sub grade and base must be proof-rolled with a fully loaded (ten (10) ton load) tandem truck or equivalent tire vehicle with one (1) pass down each driving lane no faster than three (3) miles per hour.
RN #14 Sub grade and base beneath pavements shall be compacted to St. Charles County Highway Department specifications.
RN #15 The entire width and length will conform to line, grade and cross section shown on the plans or as established by the engineer.
RN #16 Utility Work Prior To Base Construction.
RN #17 Equipment calibration.
RN #18 All permanent traffic control will be per M.U.T.C.D. or MoDot standards.
RN #19 All traffic signals, street signs, sign post, backs and bracket arms shall be painted black using Carboline Rust Bond Penetrating Sealer SG and Carboline 133 HB point (or equivalent as approved by City of O'Fallon and MoDot).

Flood plain Information

FP #1 A flood plain development application from the City is required for any work within the flood plain limits.

Retaining Walls: Terraced and Vertical

- RW #1 A permit is required for all retaining walls that are 48 inches or taller in height, measured from the top of the footing to the top of the wall or for walls that support a surcharge load or that alters the channelized drainage of any lot or drainage area.
RW #2 Retaining walls will not be allowed in public right-of-way without written approval from the City Engineer.
RW #3 Any retaining wall more than thirty (30) inches tall which supports a walking surface that is within two (2) feet of the wall will require a guard on the retaining wall.
RW #4 Retaining walls that alter the channelled drainage of any lot or drainage area shall not be constructed without prior approval and permitting from the City of O'Fallon Engineering Department regardless of the height of the wall.
RW #5 See section 405.275 of the City code for additional design requirements.

PROJECT TITLE:
RENOVATIONS FOR THE
CITY OF OFALLON
ENVIRONMENTAL
SERVICES BUILDING
Box Project 0-06-037-42A Issue Date: 07/22/2016

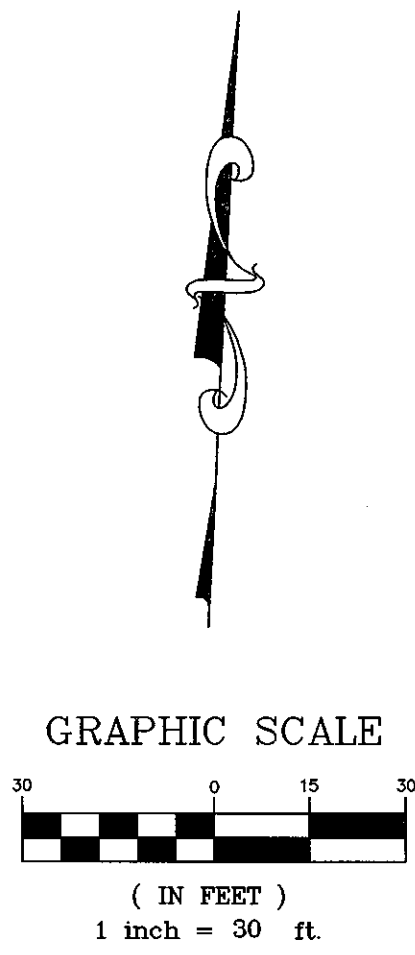
ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-6552
FAX 636-1718

LARRY DAVID
PROFESSIONAL ENGINEER
No. 000643
09/01/16
Civil Engineer
Engineer License No. 2007020343
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Engineering Authority No. 000655
Surveying Authority No. 000144
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Table with 2 columns: Date, Description. Includes entries for 08-19-16 CITY COMMENTS and 08-31-16 ADDENDUM 1.

Developer / Owner:
CITY OF OFALLON
100 N. MAIN STREET
OFALLON, MO 63366
636-379-5513
COMMERCIAL NOTES

P+Z No. #05-11.01
Approved 06-02-16
City No. #

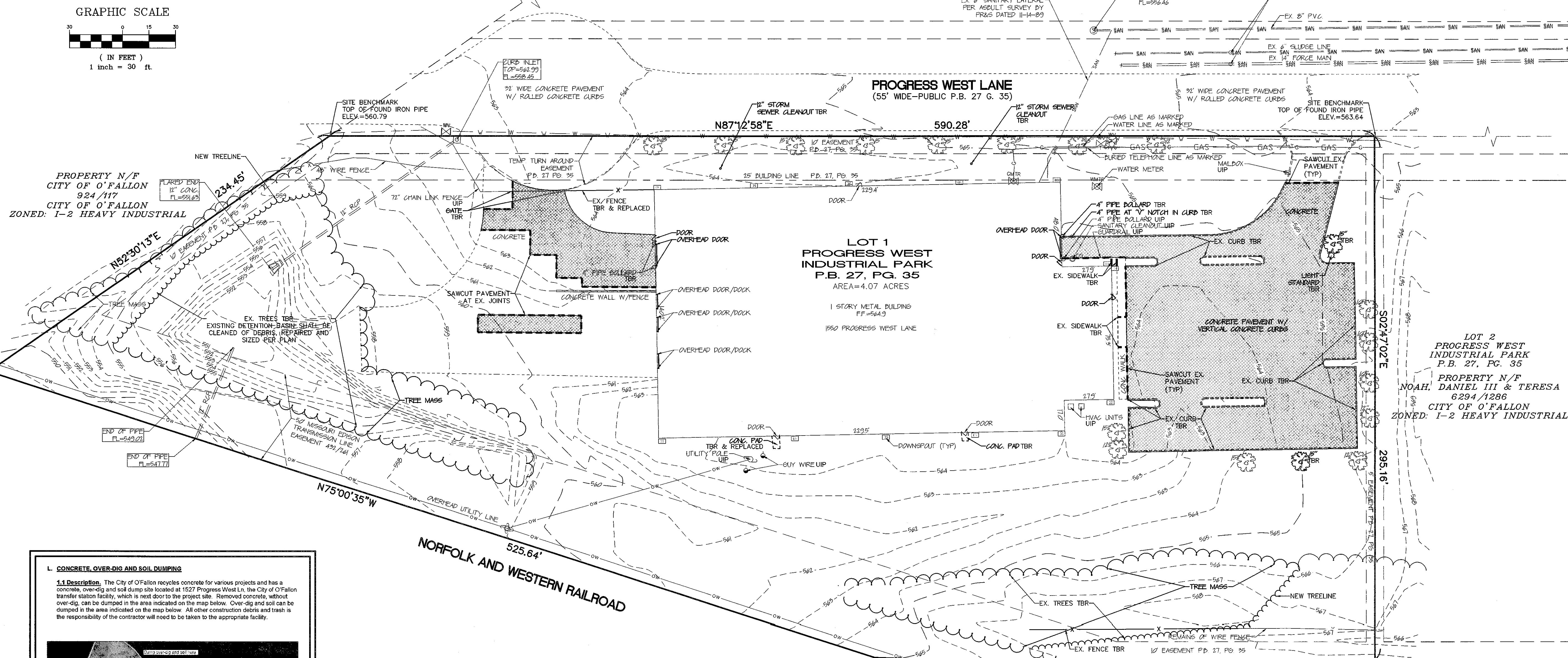


PROPERTY N/F
H AND K MACHINE SERVICE COMPANY INC.
924 /117
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL

EXISTING SANITARY SEWER DEPICTED ON PLANS IS BASED UPON AN ASBUILT SURVEY CERTIFIED BY PICKETT RAY & SILVER ON 11-14-89. THE SANITARY CLEANOUT NEAR THE EXISTING GUARDRAIL WAS IDENTIFIED IN A PREVIOUS SURVEY. CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY EXISTING SANITARY PRIOR TO ANY GRADING AND CONSTRUCTION. OIL & GREASE SEPARATOR CONNECTION MAY REQUIRE REVISION. CONTRACTOR SHALL CONTACT ENGINEER FOR ANY CONFLICT.

ALL EXISTING CLEANOUTS, YARD DRAINS AND CONNECTIONS TO DOWNSPOUTS SHALL BE REMOVED. EXISTING PIPES SHALL BE ABANDONED.

EX SANITARY MANHOLE PER ASBUILT SURVEY BY PR&S DATED 11-14-89
T=564.49
FL=556.66



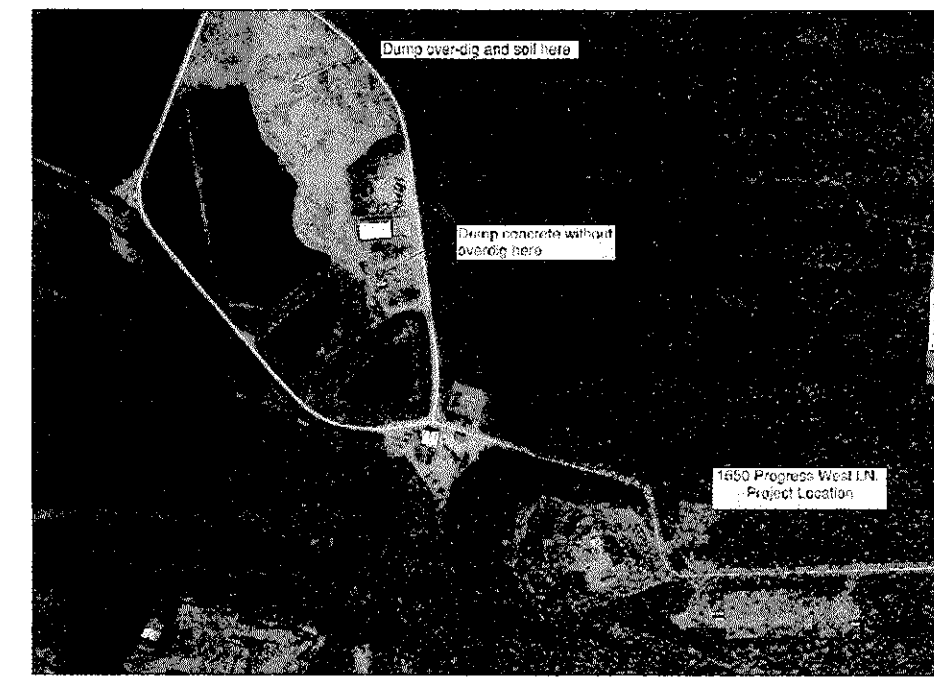
PROPERTY N/F
CITY OF O'FALLON
924 /117
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL

LOT 1
PROGRESS WEST INDUSTRIAL PARK
P.B. 27, PG. 35
AREA=4.07 ACRES
1 STORY METAL BUILDING
FF=564.3
1550 PROGRESS WEST LANE

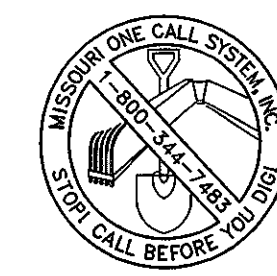
LOT 2
PROGRESS WEST INDUSTRIAL PARK
P.B. 27, PG. 35
PROPERTY N/F
NOAH, DANIEL III & TERESA
6294 /1286
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL

247.32' LOT 13
RESUBDIVISION OF CHARLESTOWN
WEST INDUSTRIAL PARK
P.B. 23, PG. 25
PROPERTY N/F
BOGLE, JEROME A & PAMELA
6485 /718
CITY OF O'FALLON
ZONED: I-1 LIGHT INDUSTRIAL

L. CONCRETE OVER-DIG AND SOIL DUMPING
1.1 Description. The City of O'Fallon recycles concrete for various projects and has a concrete, over-dig and soil dump site located at 1527 Progress West Ln, the City of O'Fallon transfer station facility, which is next door to the project site. Removed concrete, without over-dig, can be dumped in the area indicated on the map below. Over-dig and soil can be dumped in the area indicated on the map below. All other construction debris and trash is the responsibility of the contractor and will need to be taken to the appropriate facility.



EXISTING PAVEMENT TO BE REMOVED

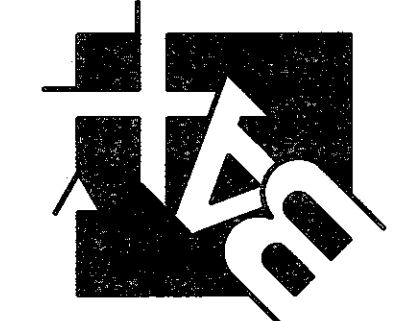


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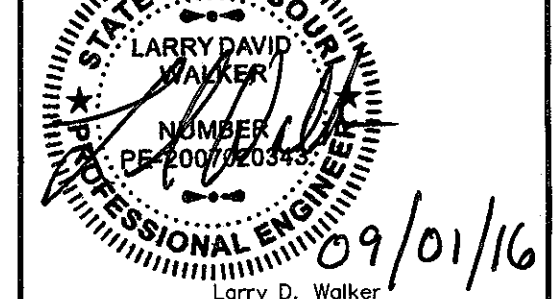
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PROJECT TITLE:
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SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-938-5522
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Civil Engineer
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REVISIONS

08-19-16	CITY COMMENTS
08-31-16	ADDENDUM 1

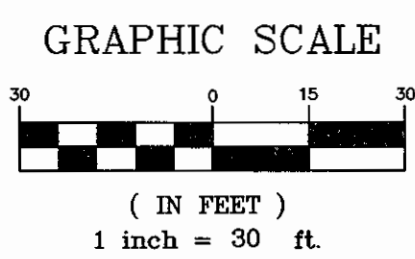
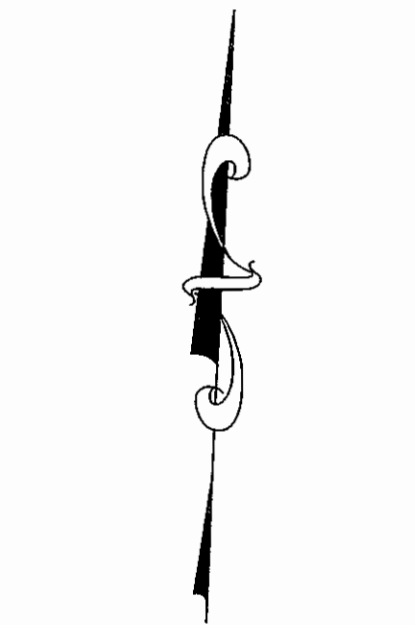
Developer / Owner:
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100 N. MAIN STREET
O'FALLON, MO 63366
636-379-5513

DEMOLITION PLAN

P+Z No. #05-11.01
Approved 06-02-16
City No. #

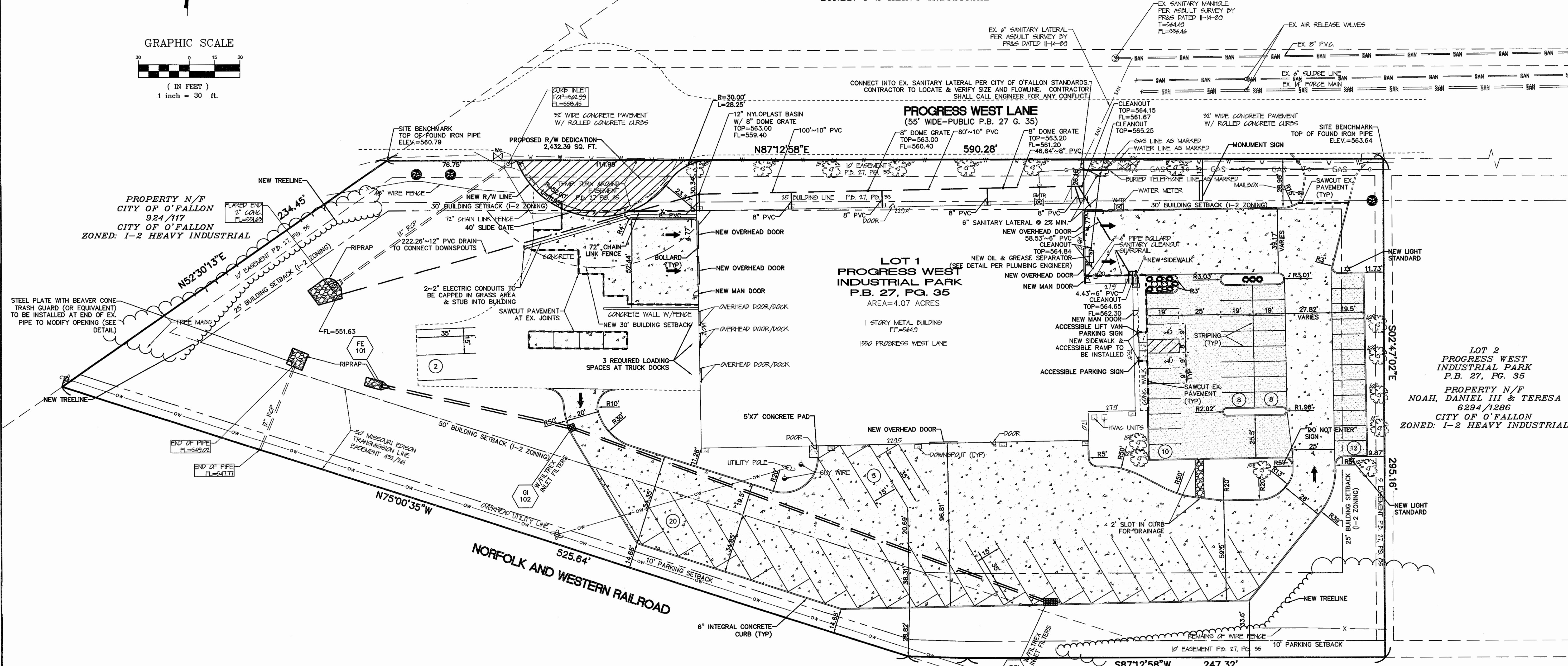
Page No. 3 of 10

Box Project # 06-87-42A Issue Date: 07/22/2016



PROPERTY N/F
H AND K MACHINE SERVICE COMPANY INC.
924/117
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL

EXISTING SANITARY SEWER DEPICTED ON PLANS IS BASED UPON AN ASBUILT SURVEY CERTIFIED BY PICKETT RAY & SILVER ON 11-14-89. THE SANITARY CLEANOUT NEAR THE EXISTING GUARDRAIL WAS IDENTIFIED IN A PREVIOUS SURVEY. CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY EXISTING SANITARY PRIOR TO ANY GRADING AND CONSTRUCTION. OIL & GREASE SEPARATOR CONNECTION MAY REQUIRE REVISION. CONTRACTOR SHALL CONTACT ENGINEER FOR ANY CONFLICT.



LANDSCAPE LEGEND

QTY. (3) EASTERN REDBUD	CERCIS CANADENSIS	MINIMUM 2" CALIPER (MATURE HEIGHT = 20-30 FT.)
QTY. (2) OAKLEAF HYDRANGEA	HYDRANGEA QUERCIFOLIA 'FLEMINGEA' SNOWQUEEN	(MATURE HEIGHT = 4-6 FT.)
QTY. (10) SHRUB ROSE	ROSA 'RADRAZZ' KNOCK	(MATURE HEIGHT = 3-4 FT.)

ALL TREES SHALL BE DECIDUOUS AT MIN. CALIPER MEASURED 1 FOOT ABOVE GRADE AT 2 INCHES. SIZE OF SHRUBS SHALL BE DETERMINED BY APPLICANT. ISLAND GROUNDCOVER SHALL BE LILY TURF (LIRIOPE SPICATA). LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER.

- NEW 7" CONCRETE OVER 4" ROCK (HEAVY DUTY PAVEMENT)
- NEW 6" CONCRETE OVER 4" ROCK (LIGHT DUTY PAVEMENT)

EXISTING CENTURY LINK BURIED CABLE SERVING BUILDING. LOCATION IS UNKNOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SERVICE AND ALL UTILITIES PRIOR TO ANY EXCAVATION.

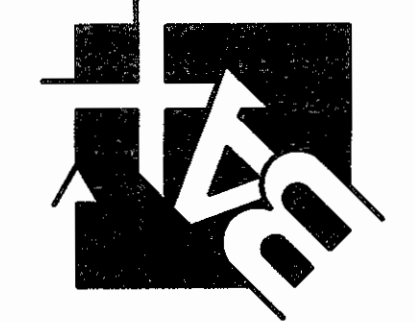


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1-800-DIG-RITE

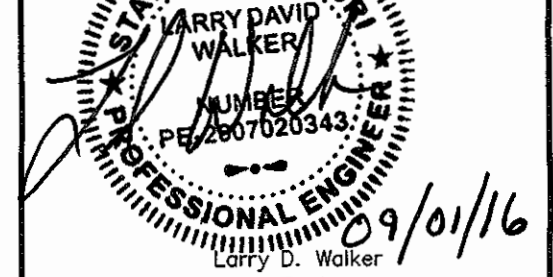
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St. Charles, MO 63301
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REVISIONS

08-19-16	CITY COMMENTS
08-31-16	ADDENDUM 1

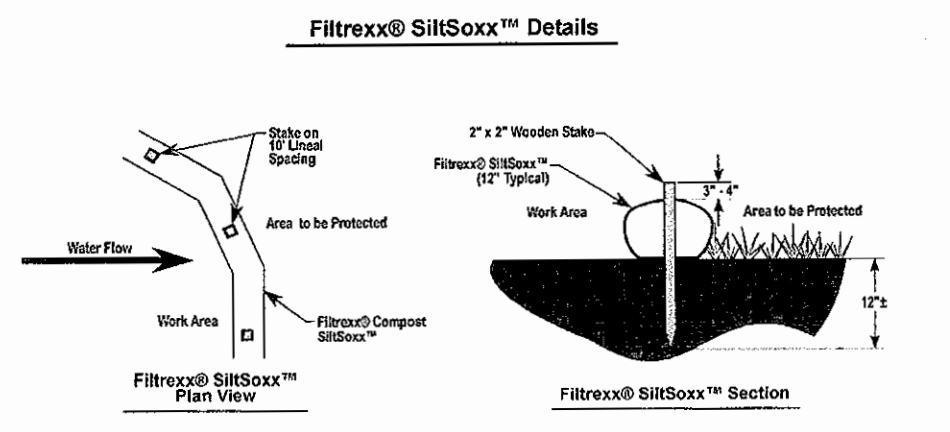
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O'FALLON, MO 63366
636-379-5518

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Approved 06-02-16
City No. #

Page No. 4 of 10

SITE PLAN

Box Project # 05-13742A Issue Date: 07/22/2016

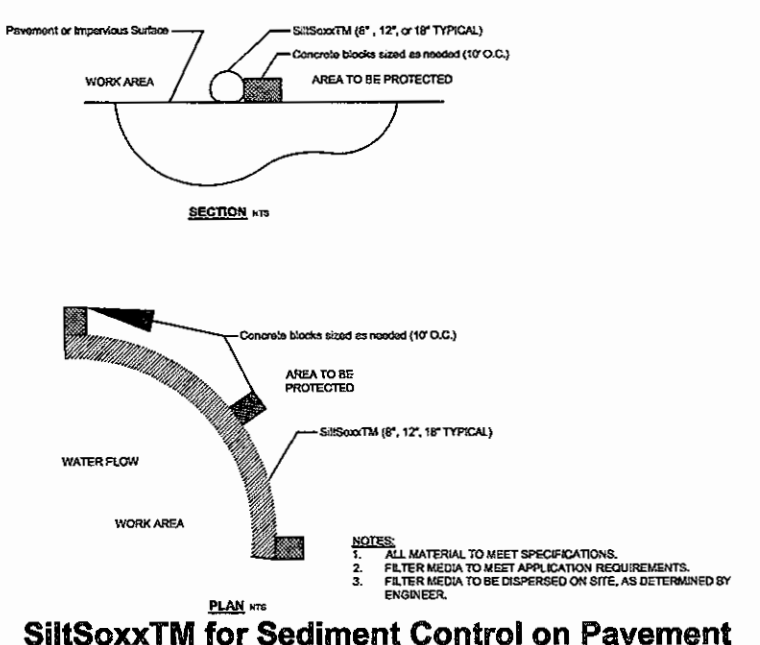


- NOTE:**
1. All material to meet Filtrax specifications.
 2. SiltSox™ manufactured by Box Engineering Company.
 3. SiltSox™ is designed for use on slopes. Greater slopes require higher stakes per line length.
 4. Concrete material to be disposed on site, as determined by Engineer.

Maximum Slope Lengths Above SiltSox™ in Feet (meters)*

Slope Percent	8 in (203 mm) SiltSox™	12 in (305 mm) SiltSox™	18 in (457 mm) SiltSox™	24 in (609 mm) SiltSox™	32 in (813 mm) SiltSox™
2 (or less)	600 (180)	750 (225)	1000 (300)	1300 (400)	1650 (500)
3	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)
15	140 (40)	170 (50)	200 (60)	250 (75)	300 (90)
20	100 (30)	125 (38)	140 (42)	180 (54)	220 (66)
25	80 (24)	100 (30)	110 (33)	140 (42)	170 (50)
30	60 (18)	75 (23)	90 (27)	110 (33)	140 (42)
35	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
40	30 (9)	40 (12)	50 (15)	60 (18)	75 (23)
45	20 (6)	30 (9)	40 (12)	50 (15)	60 (18)
50	15 (4.5)	20 (6)	25 (7.5)	30 (9)	40 (12)

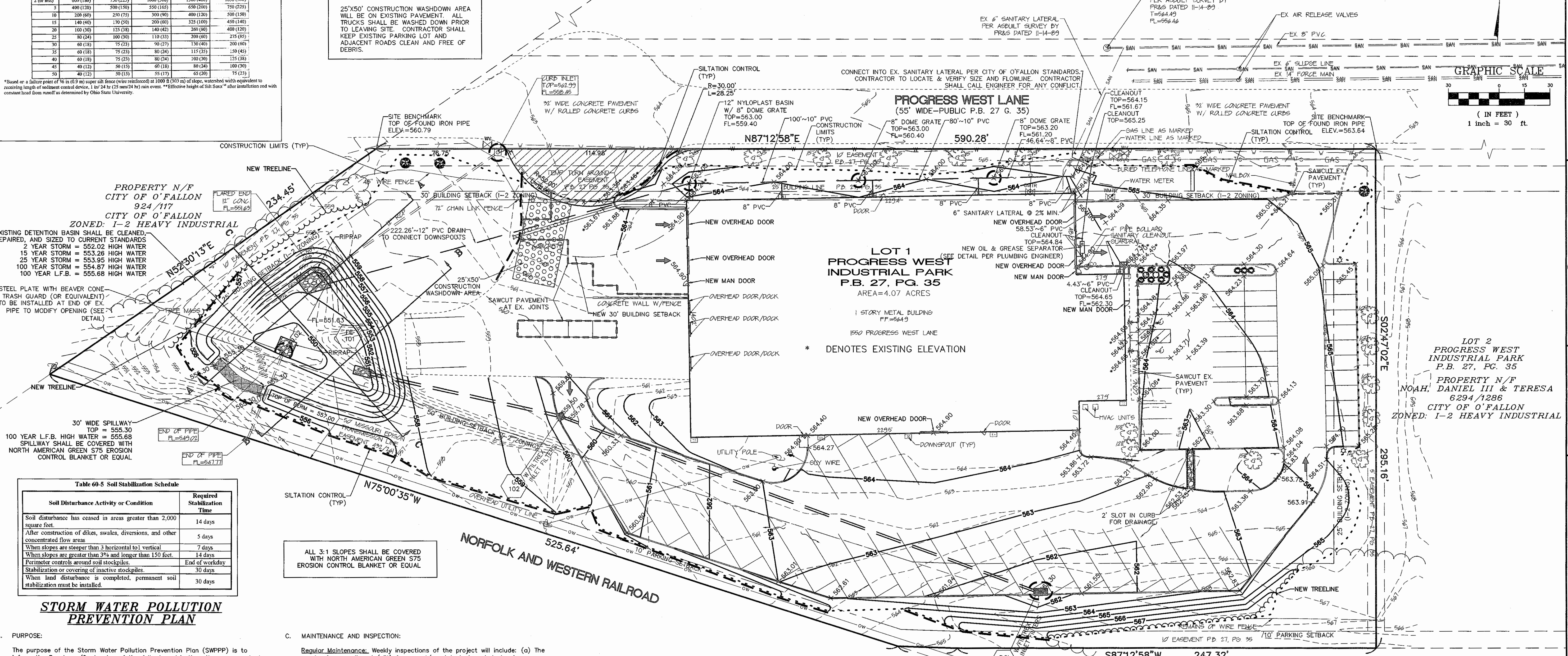
*Based on a failure point of 16 ft (0.9 m) super fill fence (wire reinforced) at 1000 lb (453 kg) of slope, watershed, with equivalent to prevailing length of sediment control device, 1/2" x 24" (13 mm x 24 mm) wire mesh. *Effective height of SiltSox™ after installation and with constant load from runoff as determined by Ohio State University.



25'x50' CONSTRUCTION WASHDOWN AREA WILL BE ON EXISTING PAVEMENT. ALL TRUCKS SHALL BE WASHED DOWN PRIOR TO LEAVING SITE. CONTRACTOR SHALL KEEP EXISTING PARKING LOT AND ADJACENT ROADS CLEAN AND FREE OF DEBRIS.

PROPERTY N/F
H AND K MACHINE SERVICE COMPANY INC.
924/117
CITY OF O'FALLON
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EXISTING DETENTION BASIN SHALL BE CLEANED, REPAIRED, AND SIZED TO CURRENT STANDARDS:
2 YEAR STORM = 552.02 HIGH WATER
15 YEAR STORM = 553.26 HIGH WATER
25 YEAR STORM = 553.95 HIGH WATER
100 YEAR STORM = 554.87 HIGH WATER
100 YEAR L.F.B. = 555.68 HIGH WATER

STEEL PLATE WITH BEAVER CONE TRASH GUARD (OR EQUIVALENT) TO BE INSTALLED AT END OF EX. PIPE TO MODIFY OPENING (SEE DETAIL)

Table 60-5 Soil Stabilization Schedule

Soil Disturbance Activity or Condition	Required Stabilization Time
Soil disturbance has ceased in areas greater than 2,000 square feet.	14 days
After construction of dikes, swales, diversions, and other concentrated flow areas	5 days
When slopes are steeper than 3 horizontal to 1 vertical	7 days
When slopes are greater than 3% and longer than 150 feet	14 days
Transect controls around soil stockpiles	End of workday
Stabilization or covering of inactive stockpiles	30 days
When land disturbance is completed, permanent soil stabilization must be installed.	30 days

STORM WATER POLLUTION PREVENTION PLAN

A. PURPOSE:
The purpose of the Storm Water Pollution Prevention Plan (SWPPP) is to inform the Developer/Contractor of the following objectives they are required to meet:
- Prevent erosion where construction activities shall occur.
- Prevent pollutants from mixing with storm water.
- Prevent pollutants from being discharged by trapping them on-site, before they can affect the receiving waters.
- All regulations of Missouri Department of Natural Resources are met.
- All regulations of the Environmental Protection Agency are met.
- All regulations of the local municipality are met.

B. PROJECT DESCRIPTION:
The project is located in the Perdue Creek watershed in St. Charles County, Missouri. This project disturbs approximately 3.40 acres.
The project activities consist of the construction of new pavement within an existing lot and repairing an existing detention basin. The site will be protected by the various erosion protection measures listed below:
1. Siltation Control: The entire perimeter of the project that allows storm water to exit will have siltation control installed. Details of these devices are depicted on the detail plans prepared by Box Engineering Company, Inc.
2. Revegetation: The site will consist of varying ground slopes, upon completion of the grading activities the slope prone to erosion will be seeded and strawed to stabilize the slope and prevent erosion.

ALL 3:1 SLOPES SHALL BE COVERED WITH NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKET OR EQUAL

C. MAINTENANCE AND INSPECTION:
Regular Maintenance: Weekly inspections of the project will include: (a) The repair of any sediment (silt) fence and/or staked straw bala barriers damaged or out of place; (b) The removal of any accumulated trash and/or debris; and (c) The removal of any externally deposited waste materials.
Periodic Inspections: Following each rain of more than 0.50 inch in 24 hours, the site will be inspected, and any necessary maintenance will be provided for a period of one year following the completion of the above remediation measures. Summaries of the maintenance and the inspections will be maintained and shall be kept available from the owner. An inspection report shall be filed and kept on site for every inspection. The report shall detail the findings of the inspection and if any action was required. The inspection form needs to include, name of the site, name of the inspector, permit number, date of inspection, major observations and actions taken to correct problems and the signature of the inspector. The inspection reports need to be kept on file by the permittee for three years after the project is completed.
The field inspections will be conducted in a systematic manner to minimize the possibility of any significant feature being overlooked. A detailed checklist will be developed and followed for the examination. Particular attention will be given to detecting evidence of erosion, slope instability, undue settlement, displacement, and tilting. Photographs and drawings will be used freely to record conditions in order to minimize descriptions. The field inspection will include appropriate features and items, including potential hazards to human life or property.
The condition of the slopes and vegetative cover will be evaluated and examined for erosion.
Measures will be taken to promote the growth of vegetation and repair of damage caused by erosion and sedimentation. The inspection will also provide recommendations for measures that need to be undertaken immediately, based on the experience and judgment of the inspector. Necessary follow up inspections will be made as necessary to verify that any maintenance, alteration, or repair measures are accomplished by methods acceptable by standard engineering practice.

VEGETATION ESTABLISHMENT For Urban Development Sites APPENDIX A

SEEDING RATES:
PERMANENT:
Tall Fescue - 30 lbs./ac.
Smooth Brome - 20 lbs./ac.
Combined - Fescue @ 15 lbs./ac. AND Brome @ 10 lbs./ac.
TEMPORARY:
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per s.f.)
Oats - 120 lbs./ac. (2.75 lbs. per s.f.)

SEEDING PERIODS:
Fescue or Brome - March 1 to June 1
August 1 to October 1
Wheat or Rye - March 15 to November 1
Oats - March 15 to September 15

MULCH RATES:
100 lbs. per 1000 sq. ft. (4,356 lbs. per ac.)

FERTILIZER RATES:
Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*
* ENM = effective neutralizing material as per State evaluation of quarried rock.

SPILL AND SITE POLLUTION:
Should an accidental spill occur refer to material safety data sheets. Any spills of hazardous materials in quantities in excess of reportable quantities as defined by EPA or the state agency regulations, shall be immediately reported to the EPA National Response Center (800-424-8802) and Missouri Department of Natural Resources (573-634-2436). Reportable spills for petroleum products is greater than 50 gallons. All other reportable hazardous materials and their quantities may be found on the web site at <http://www.dnr.mo.gov> on the local number is 573-640-9750. Federal law requires the responsible party to report any release of oil if it reaches or threatens a sewer, lake, creek, stream, river, groundwater, wetlands, or area like a road ditch, that drains into the above.
An emergency spill kit is required to be onsite for all potential spills.

EXISTING CENTURY LINK BURIED CABLE SERVING BUILDING. LOCATION IS UNKNOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SERVICE AND ALL UTILITIES PRIOR TO ANY EXCAVATION.

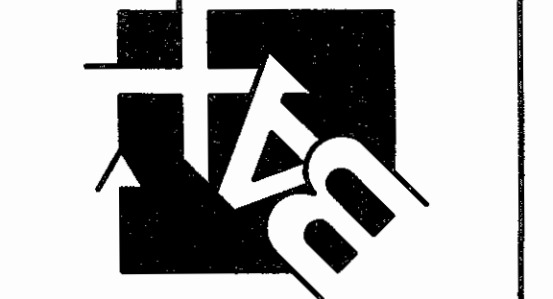


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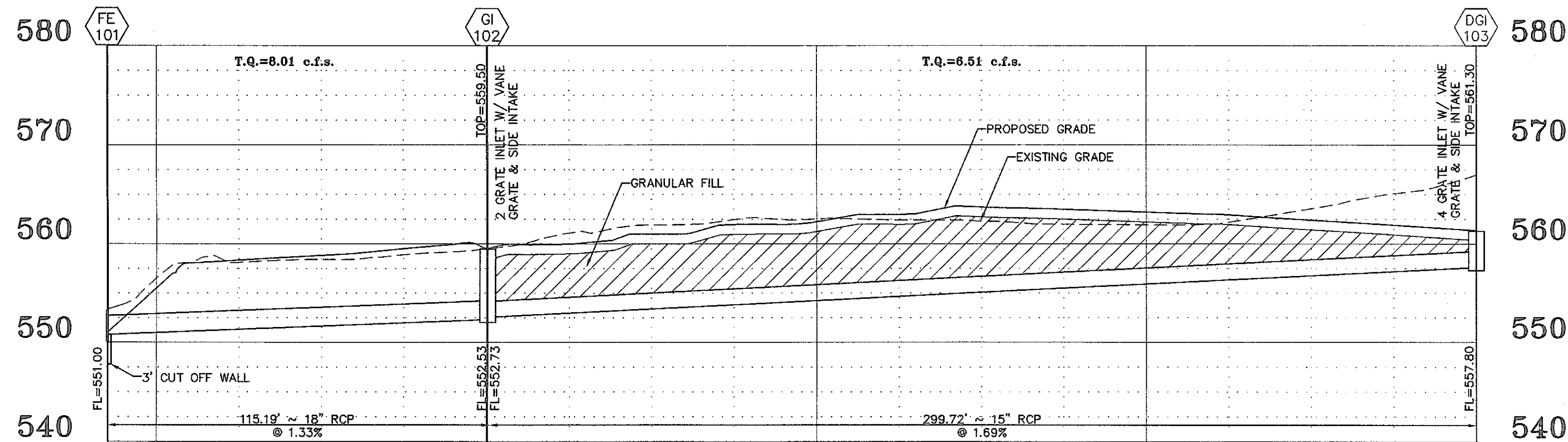
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Page No. 5 of 10

Box Project # 06-85742A Issue Date: 07/22/2016

GRADING PLAN



**STORM SEWER PROFILE
(PRIVATE)**

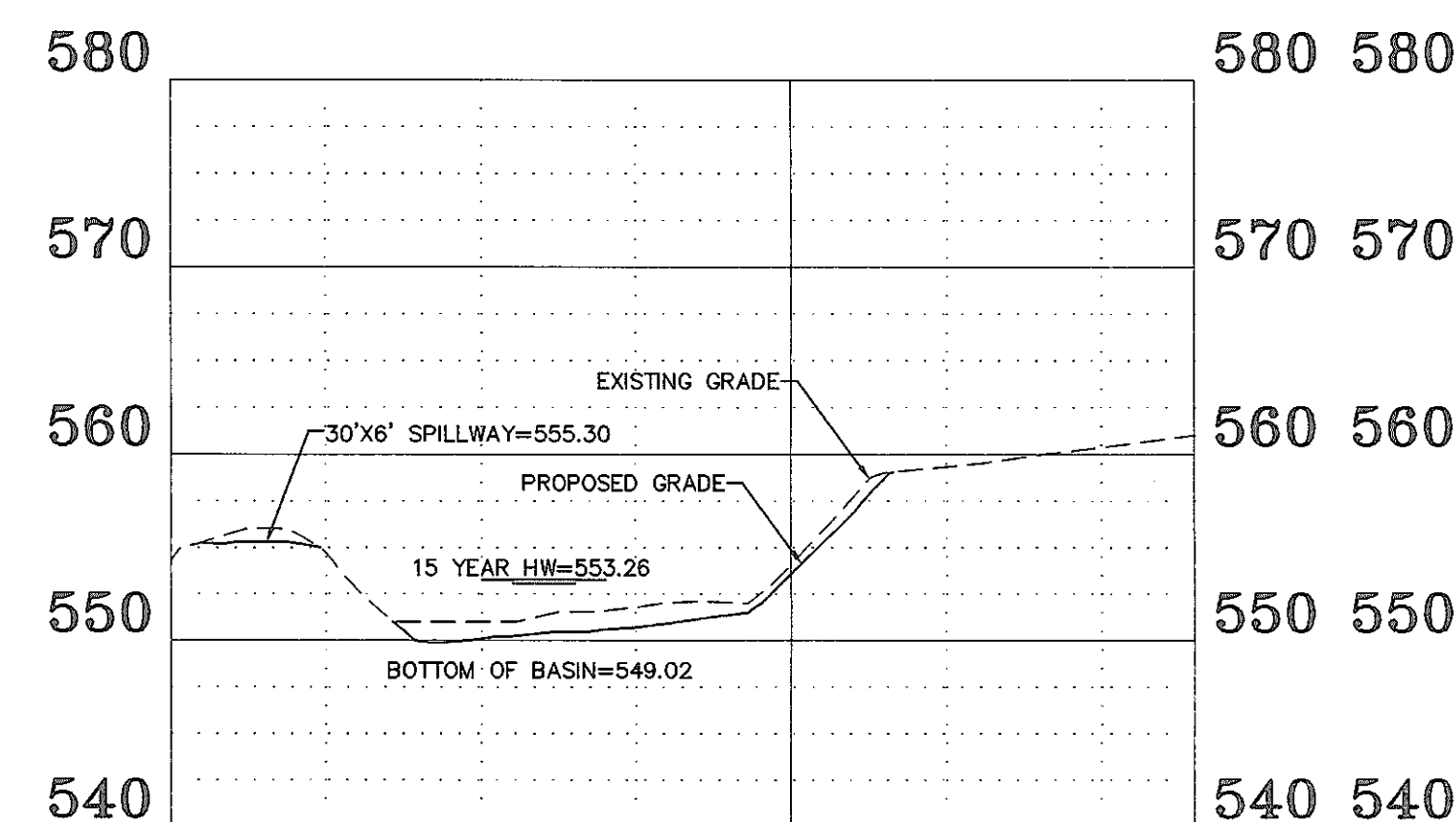
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VERTICAL SCALE: 1" = 10'

NOTE: ALL STORM INLETS TO HAVE FILTREXX FILTER. SEE DETAIL ON SHEET 10. CONTRACTOR SHALL COORDINATE WITH FLEXSTORM SUPPLIER TO ENSURE PROPERLY SIZED POST CONSTRUCTION INLET FILTERS ARE SUPPLIED FOR STORM STRUCTURES.

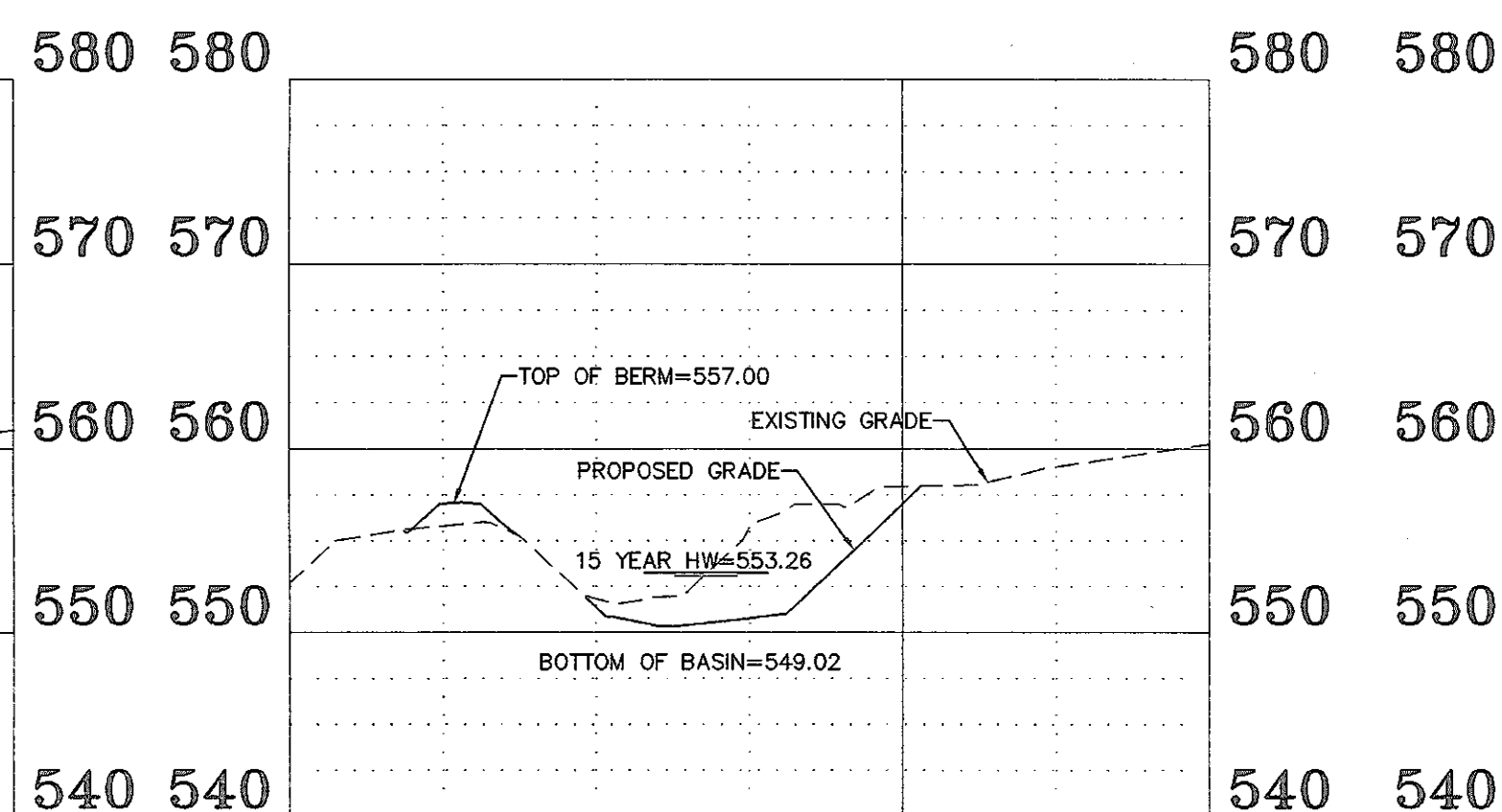
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BAX PROJECT NO. : 06-13742A
DESIGN DATE : 08-15-16
FILENAME : 13742A

UPP STR	LOW STR	L DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TURN LOSS	CURVE LOSS	STR GRADE	TNL CAP	DR AREA	PI	Q	TQ	PIPE CAP	LINE NUMBER	REMARKS
DI103	GI102	300	15 557.80	552.73	1.69	561.30	2.68	558.62	553.98	.01020	3.04	5.30	0.44	0.44	0.00	0.00	0.00	0.00	2.04	3.19	6.51	6.51	8.40	1	
GI102	FE101	115	18 552.53	551.00	1.33	559.50	5.56	553.94	553.26	.00580	0.67	4.53	0.32	0.01	0.06	0.00	0.00	0.00	0.43	3.49	1.50	8.01	12.11	2	Hw=553.26

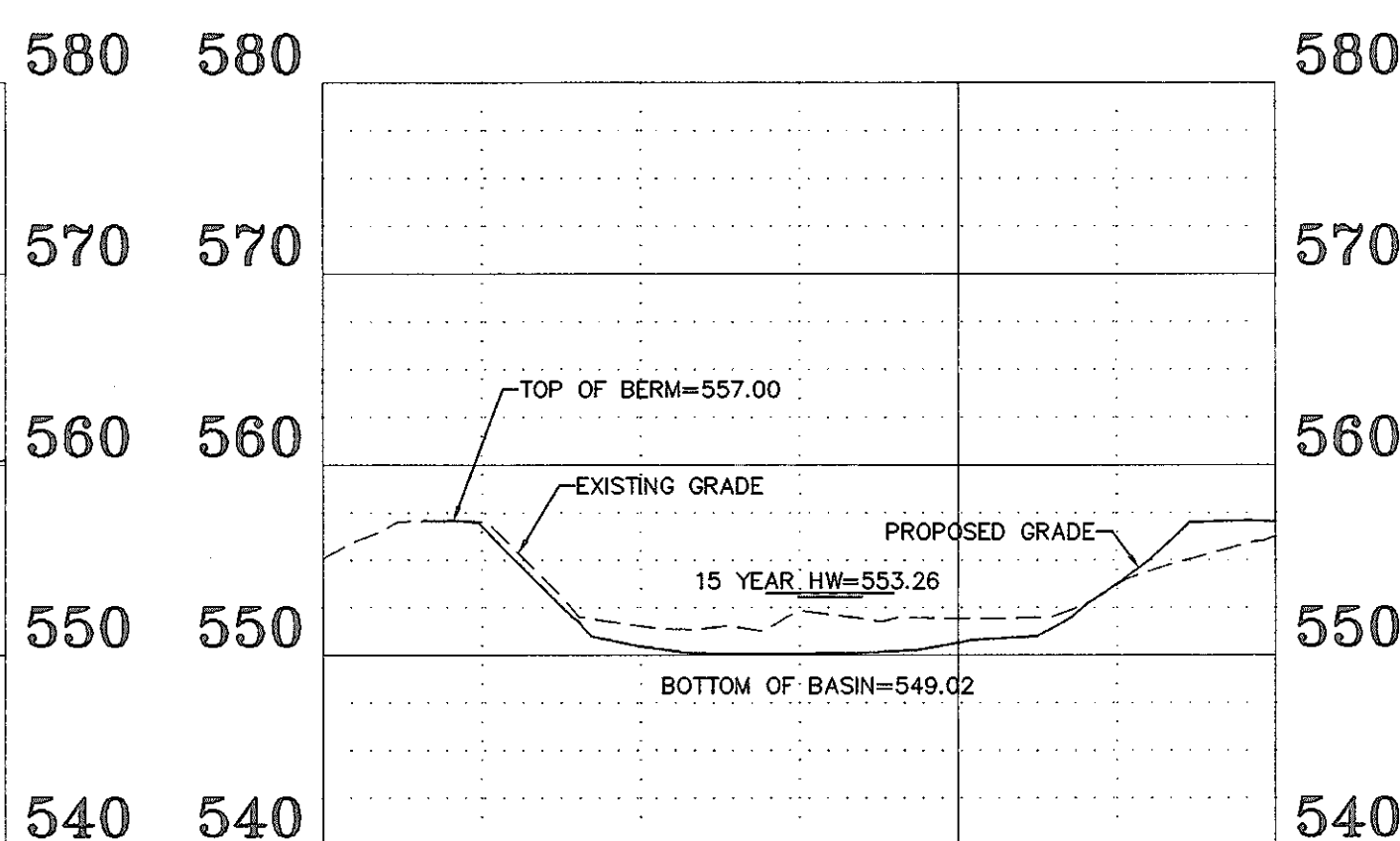
* INDICATES CRITICAL DEPTH



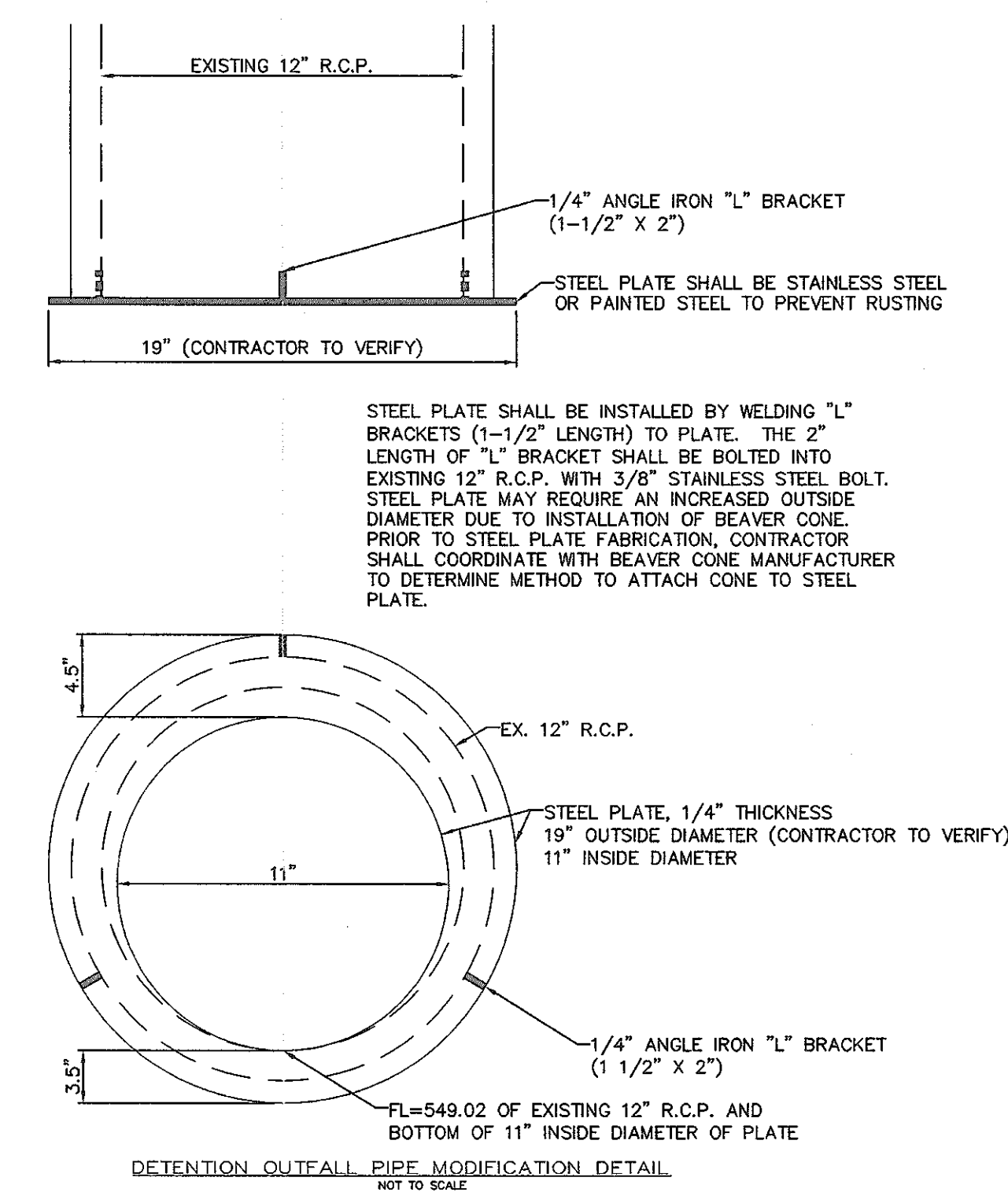
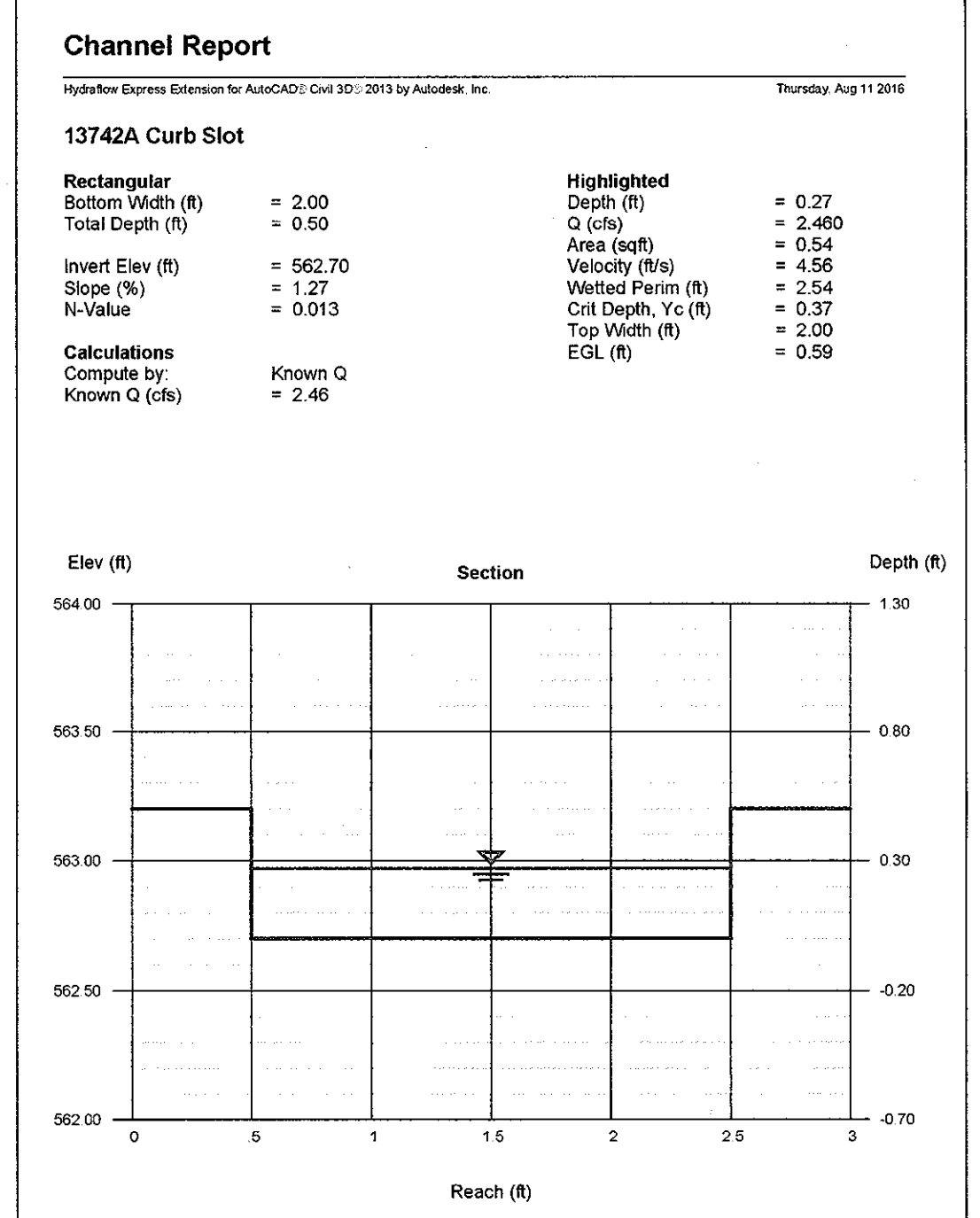
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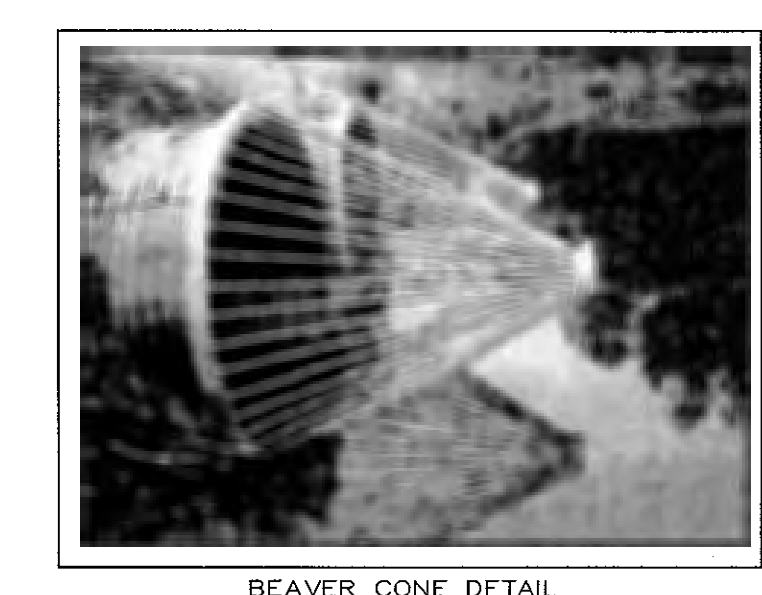
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VERTICAL SCALE: 1" = 10'



BASIN SECTION CC
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



DETECTION OUTFALL PIPE MODIFICATION DETAIL
NOT TO SCALE



BEAVER CONE DETAIL
OR EQUIVALENT

Tensar
NORTH AMERICAN GREEN
Tensar International Corporation
5401 St. Wendel-Cythara Road
Parsippany, Indiana 47633
Tel: 800-372-3640
Fax: 912-224-2247
www.nagreen.com

**Material and Performance Specification
S75 Erosion Control Blanket**

Property	Requirement	Test Method	Value
Thickness	ASTM D6625	0.37 in (9.4 mm)	
Permeability	ECTC Guidelines	78.8%	
Water Absorbency	ASTM D117	4.0×10^{-4}	
Mass/Unit Area	ASTM D475	11.97 oz/yd ² (407 gsm)	
Swirl	ECTC Guidelines	15%	
Spindling Resistance	ECTC Guidelines	Yes	
Softness	ASTM D1388	6.31 oz-in	
Light Penetration	ECTC Guidelines	7.3%	
Tensile Strength - MD	ASTM D6818	130.28 N/m (9.4 MPa)	
Elongation - MD	ASTM D6818	24.4%	
Tensile Strength - TD	ASTM D6818	85.2 N/m (6.1 MPa)	
Elongation - TD	ASTM D6818	25.8%	
Unvegetated Shear Stress		1.55 lbf/ft ² (74 Pa)	
Unvegetated Velocity		5.00 ft/s (1.52 m/s)	
Slope Length (L)		3.31 : 3.1 - 2.1 : 2.1 : 1	
Slope Gradient (S)		0.029 : 0.11 : 0.19 : 0.19	
Flow Depth		0.50 ft (0.15 m) : 0.59 - 2.0 ft : 2.0 ft (0.60 m) : 0.021	

Proved Participants: [Logos for various testing and manufacturing companies]

PROJECT TITLE:
RENOVATIONS FOR THE
CITY OF FALLON
ENVIRONMENTAL
SERVICES BUILDING

**ENGINEERING
COMPANY,
INC.**
221 Park West Blvd.
St. Charles, MO 63301
636-938-5582
FAX 636-938-1718



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LARRY DAVID WALKER
Professional Engineer
No. 000545
09/01/16
Civil Engineer

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636-379-5513

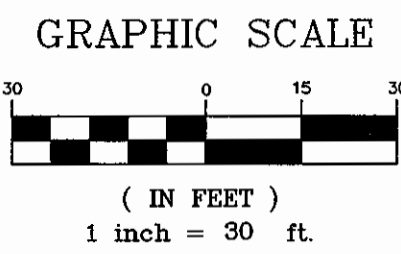
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City No. #

Page No. 6 of 10



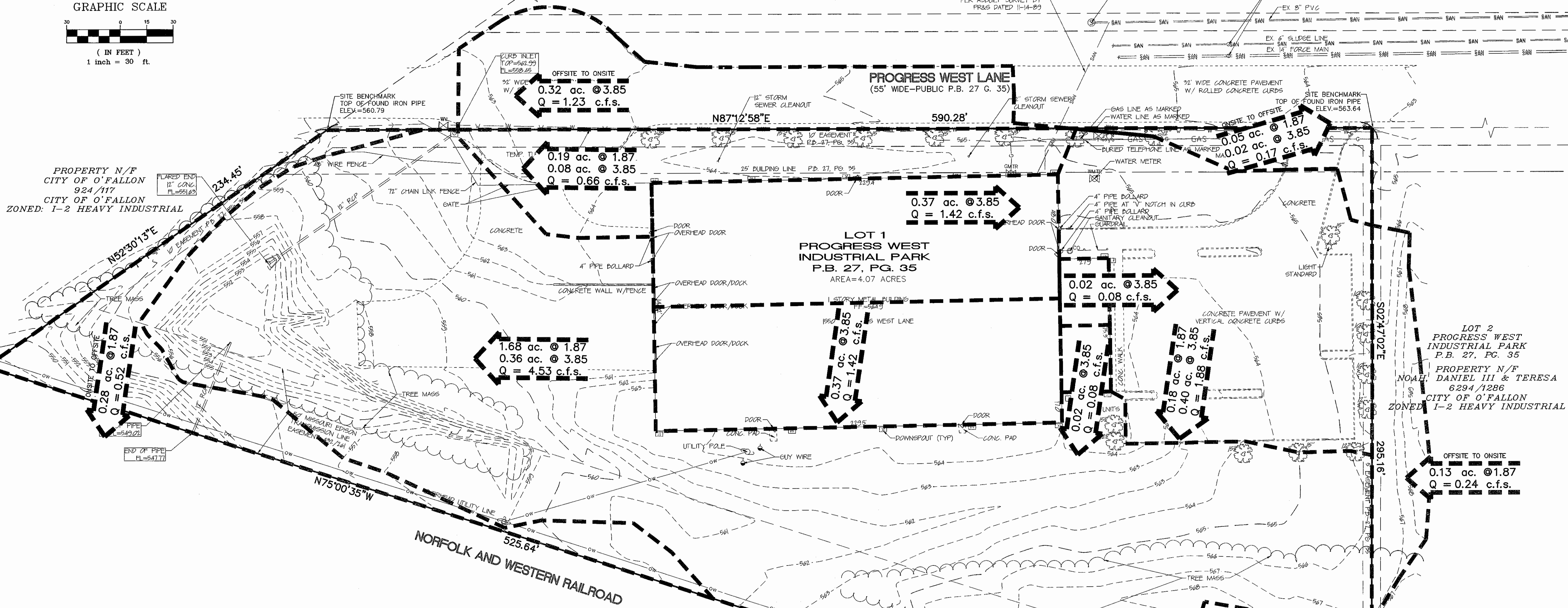
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PROPERTY N/F
H AND K MACHINE SERVICE COMPANY INC.
924/117
CITY OF O'FALLON
ZONED: 1-2 HEAVY INDUSTRIAL



PROPERTY N/F
CITY OF O'FALLON
924/117
CITY OF O'FALLON
ZONED: 1-2 HEAVY INDUSTRIAL

LOT 1
PROGRESS WEST INDUSTRIAL PARK
P.B. 27, PG. 35
AREA=4.07 ACRES

LOT 2
PROGRESS WEST INDUSTRIAL PARK
P.B. 27, PG. 35
PROPERTY N/F
NOAH DANIEL III & TERESA
6294/1286
CITY OF O'FALLON
ZONED: 1-2 HEAVY INDUSTRIAL

LOT 13
RESUBDIVISION OF CHARLESTOWN WEST INDUSTRIAL PARK
P.B. 23, PG. 25
PROPERTY N/F
BOGLE, JEROME A & PAMELA
6485/718
CITY OF O'FALLON
ZONED: 1-1 LIGHT INDUSTRIAL

PROJECT TITLE:
RENOVATIONS FOR THE CITY OF O'FALLON ENVIRONMENTAL SERVICES BUILDING



ENGINEERING SURVEYING
224 Point West Blvd.
St. Charles, MO 63301
636-929-5662
FAX 636-1718

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PE 2007020343
09/01/16
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Civil Engineer
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08-19-16	CITY COMMENTS
08-31-16	ADDENDUM 1

Developer / Owner:
CITY OF O'FALLON
100 N. MAIN STREET
O'FALLON, MO 63366
636-379-5513

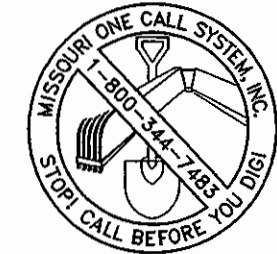
EXISTING DRAINAGE AREA MAP

P+Z No. #05-11.01
Approved 06-02-16
City No. #

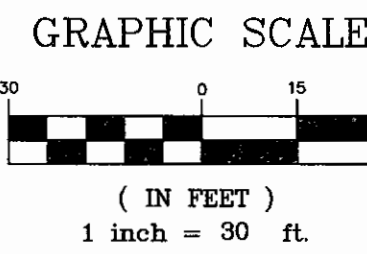
Page No. 7 of 10

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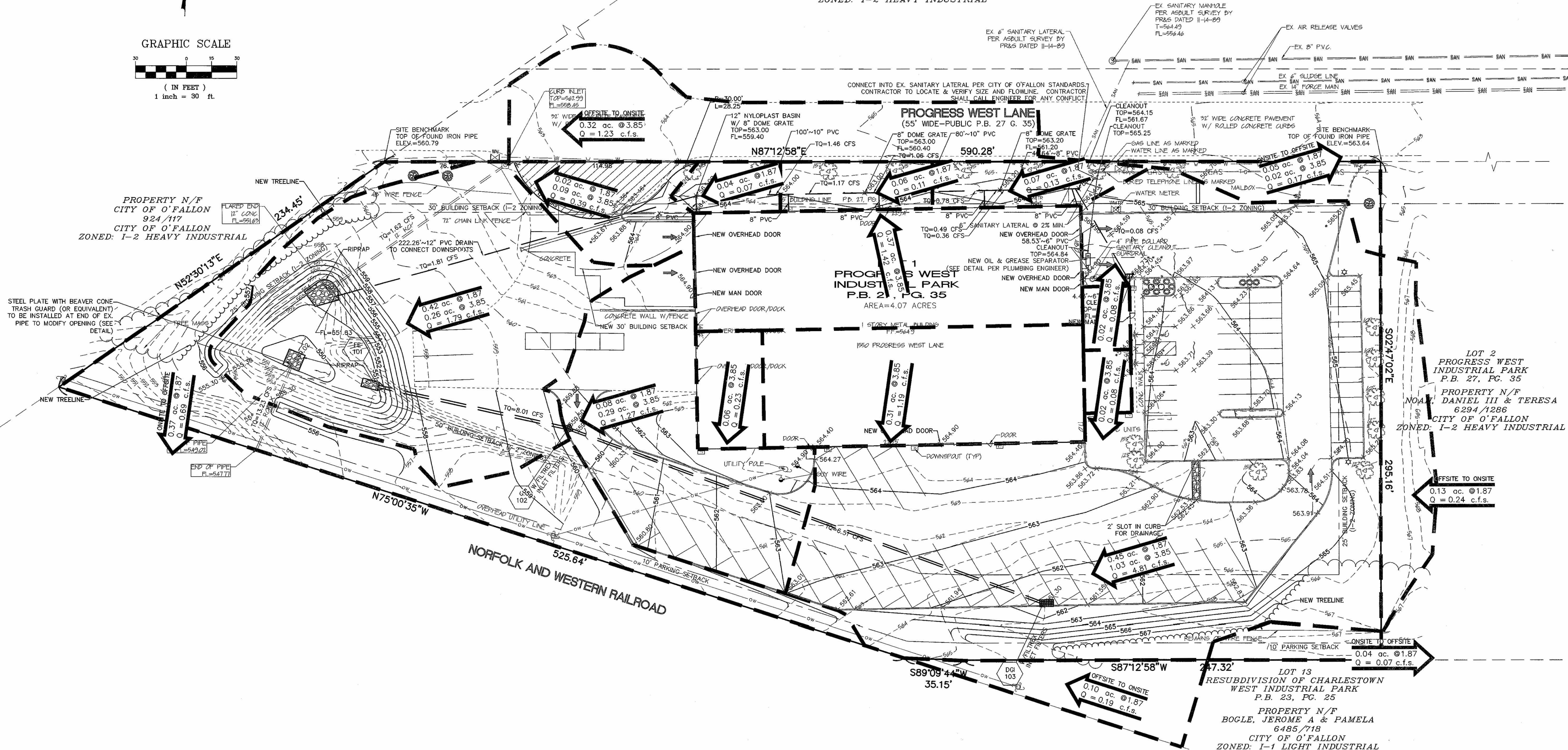


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924 /117
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL



PROPERTY N/F
CITY OF O'FALLON
924 /117
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL

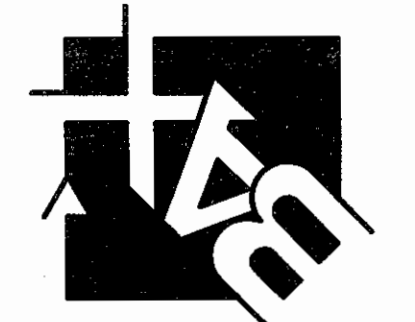
PROGRESS WEST INDUSTRIAL PARK
P.B. 21, PG. 35
AREA=4.07 ACRES

LOT 2
PROGRESS WEST INDUSTRIAL PARK
P.B. 27, PG. 35
NOAH DANIEL III & TERESA
6294 /1286
CITY OF O'FALLON
ZONED: I-2 HEAVY INDUSTRIAL

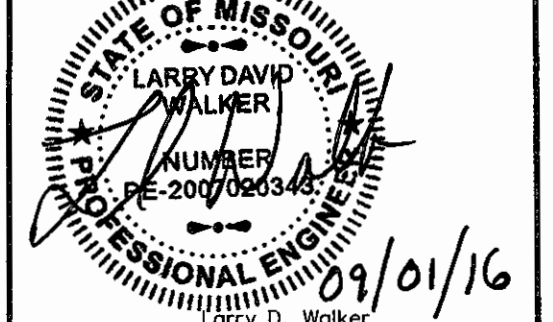
LOT 13
RESUBDIVISION OF CHARLESTOWN
WEST INDUSTRIAL PARK
P.B. 23, PG. 25
PROPERTY N/F
BOGLE, JEROME A & PAMELA
6485 /718
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ENVIRONMENTAL
SERVICES BUILDING

ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-428-6562
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08-19-16	CITY COMMENTS
08-31-16	ADDENDUM 1

Developer / Owner:
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636-379-5513

P+Z No. #05-11.01
Approved 06-02-16
City No. #

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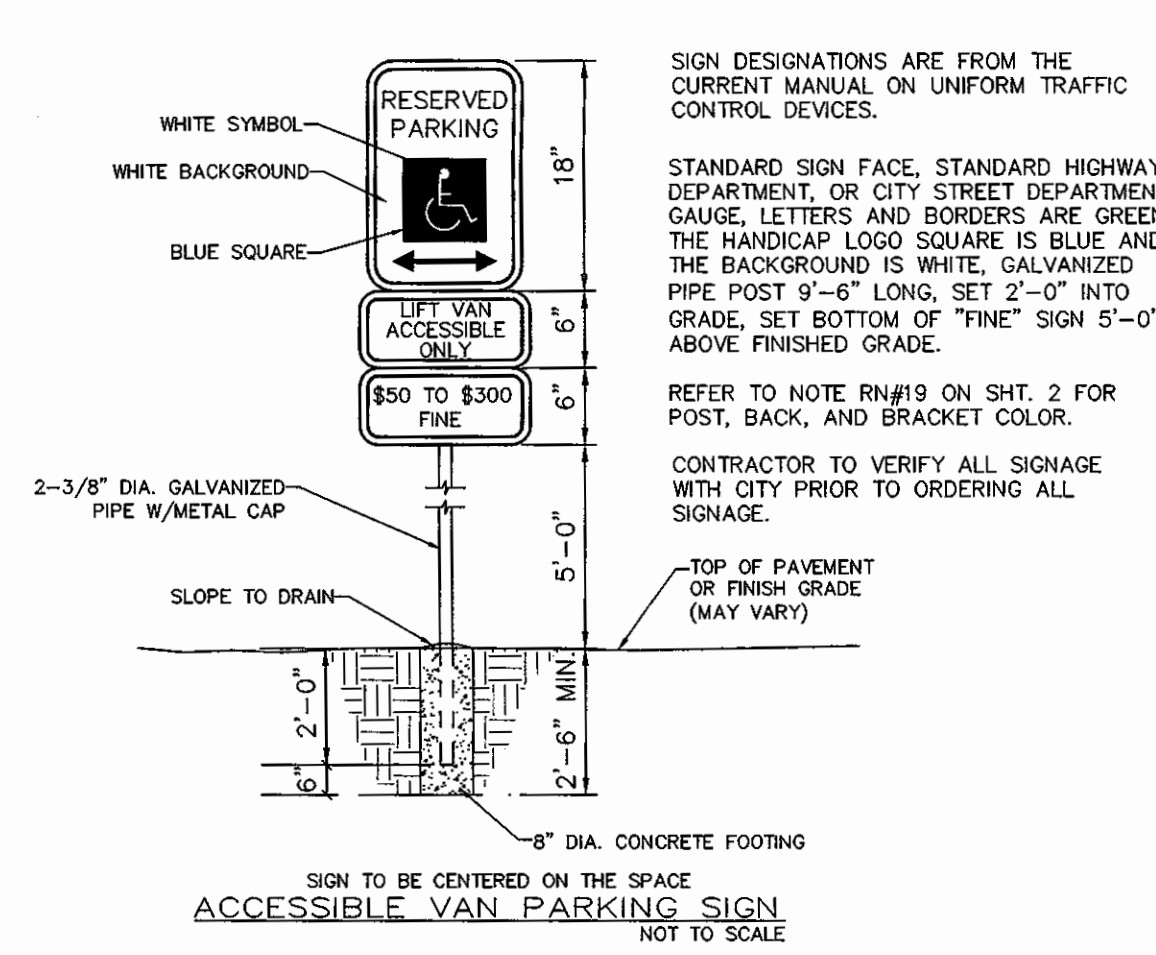


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PROPOSED DRAINAGE AREA MAP

Bax Project # 06-8742a Issue Date: 07/22/2016



SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

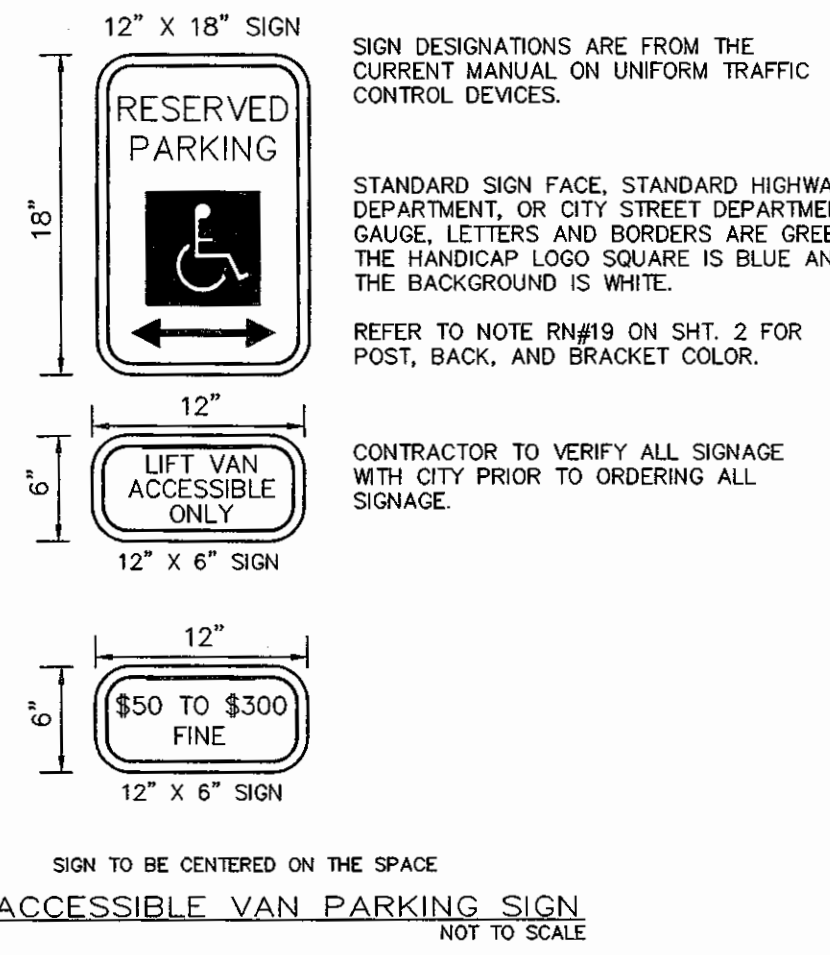
STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, GALVANIZED PIPE POST 9'-6" LONG, SET 2'-0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'-0" ABOVE FINISHED GRADE.

REFER TO NOTE RN#19 ON SHT. 2 FOR POST, BACK, AND BRACKET COLOR.

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

TOP OF PAVEMENT OR FINISH GRADE (MAY VARY)

8" DIA. CONCRETE FOOTING
SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE VAN PARKING SIGN
NOT TO SCALE



SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

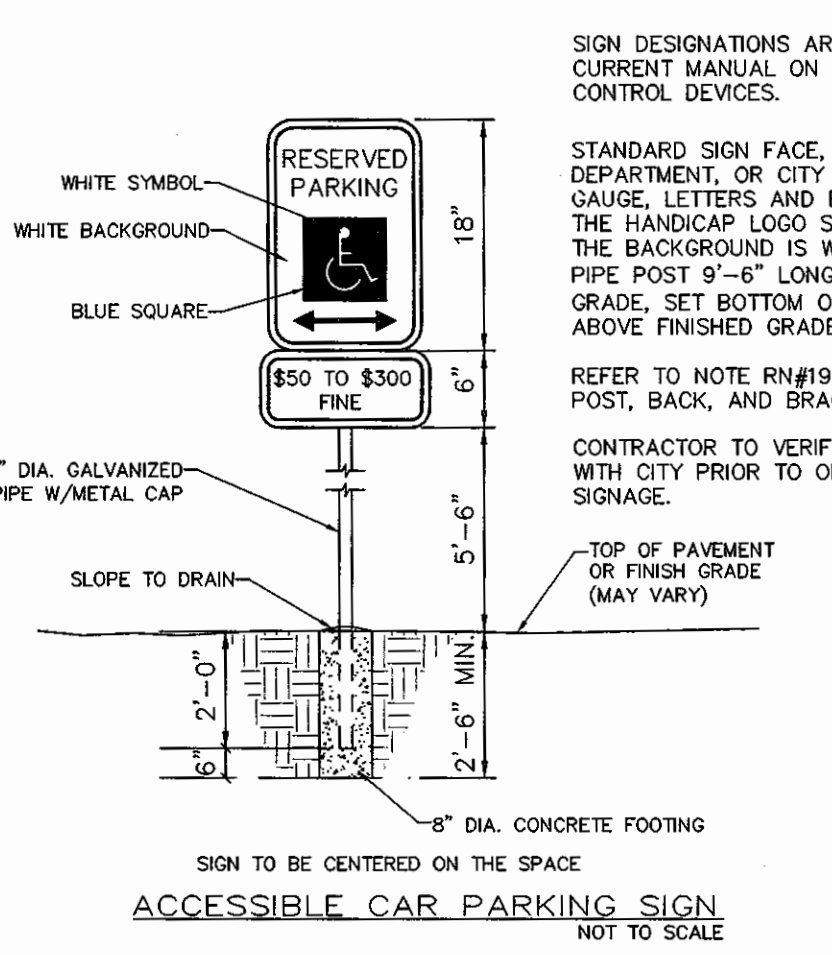
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NOT TO SCALE



SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

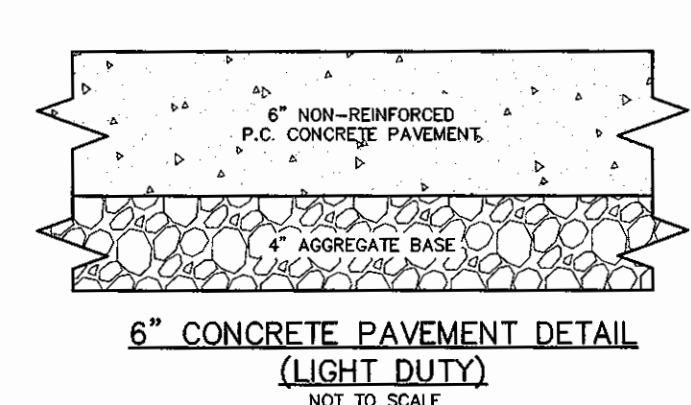
STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, GALVANIZED PIPE POST 9'-6" LONG, SET 2'-0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'-6" ABOVE FINISHED GRADE.

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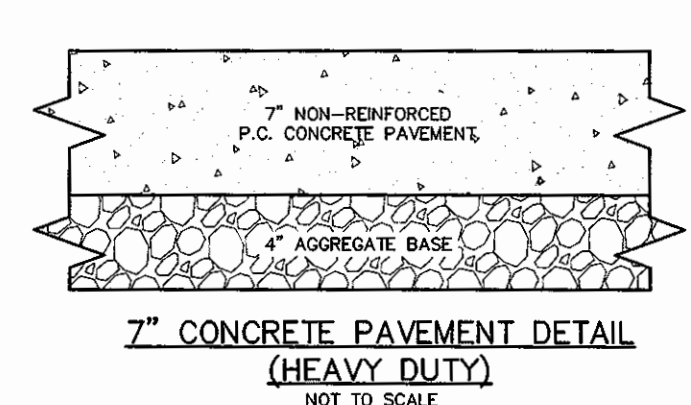
TOP OF PAVEMENT OR FINISH GRADE (MAY VARY)

8" DIA. CONCRETE FOOTING
SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE CAR PARKING SIGN
NOT TO SCALE



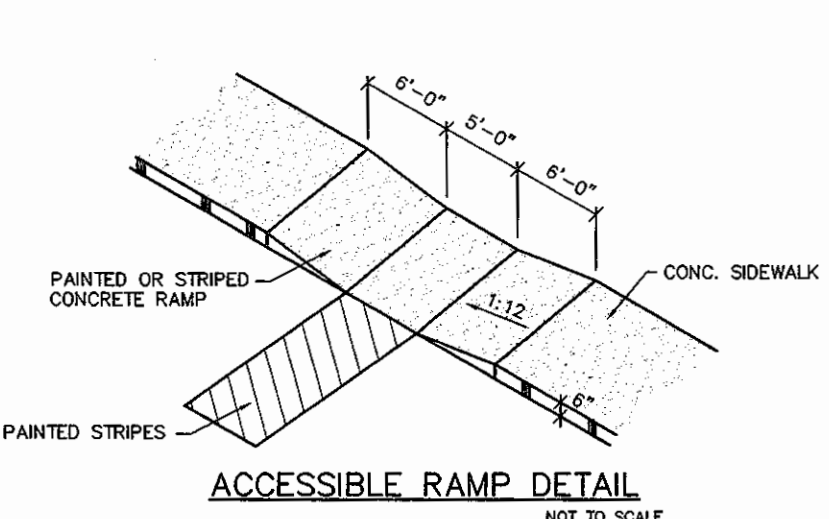
6" CONCRETE PAVEMENT DETAIL (LIGHT DUTY)
NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

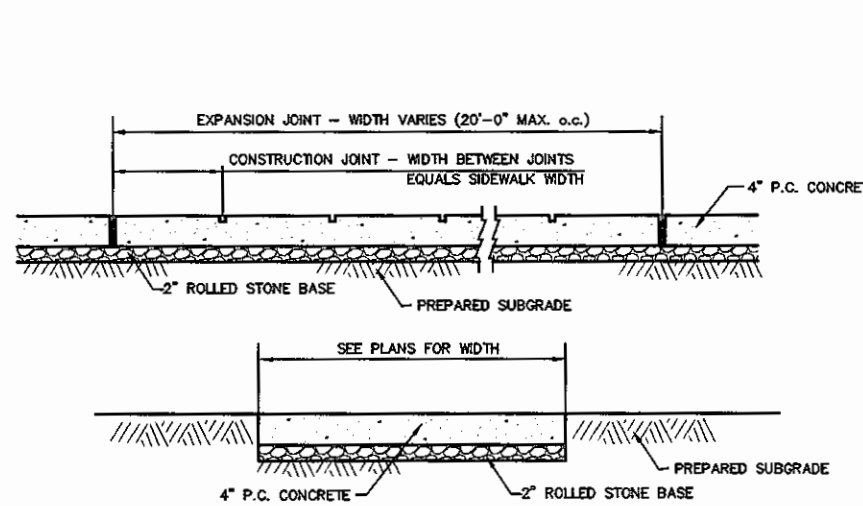


7" CONCRETE PAVEMENT DETAIL (HEAVY DUTY)
NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

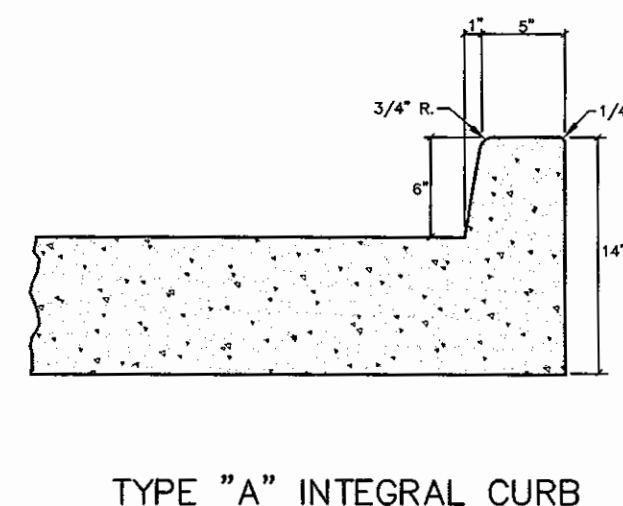


ACCESSIBLE RAMP DETAIL
NOT TO SCALE



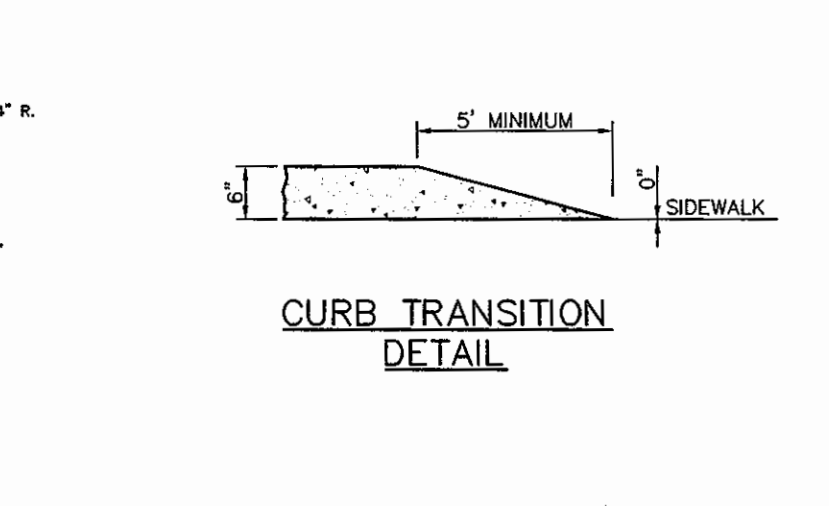
CONCRETE SIDEWALK DETAIL
NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

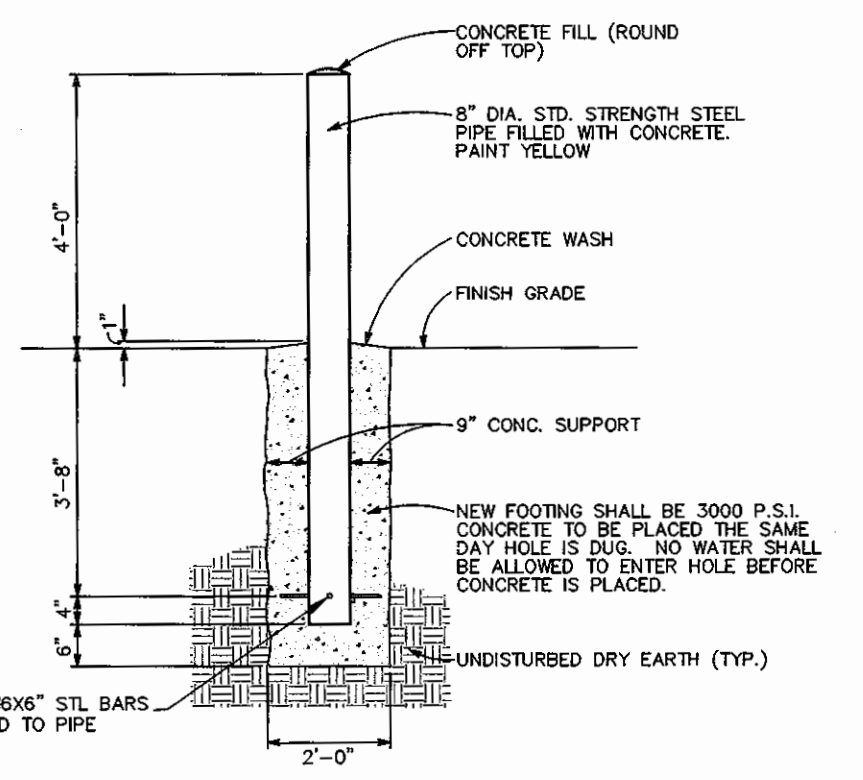


TYPE "A" INTEGRAL CURB
N.T.S.

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

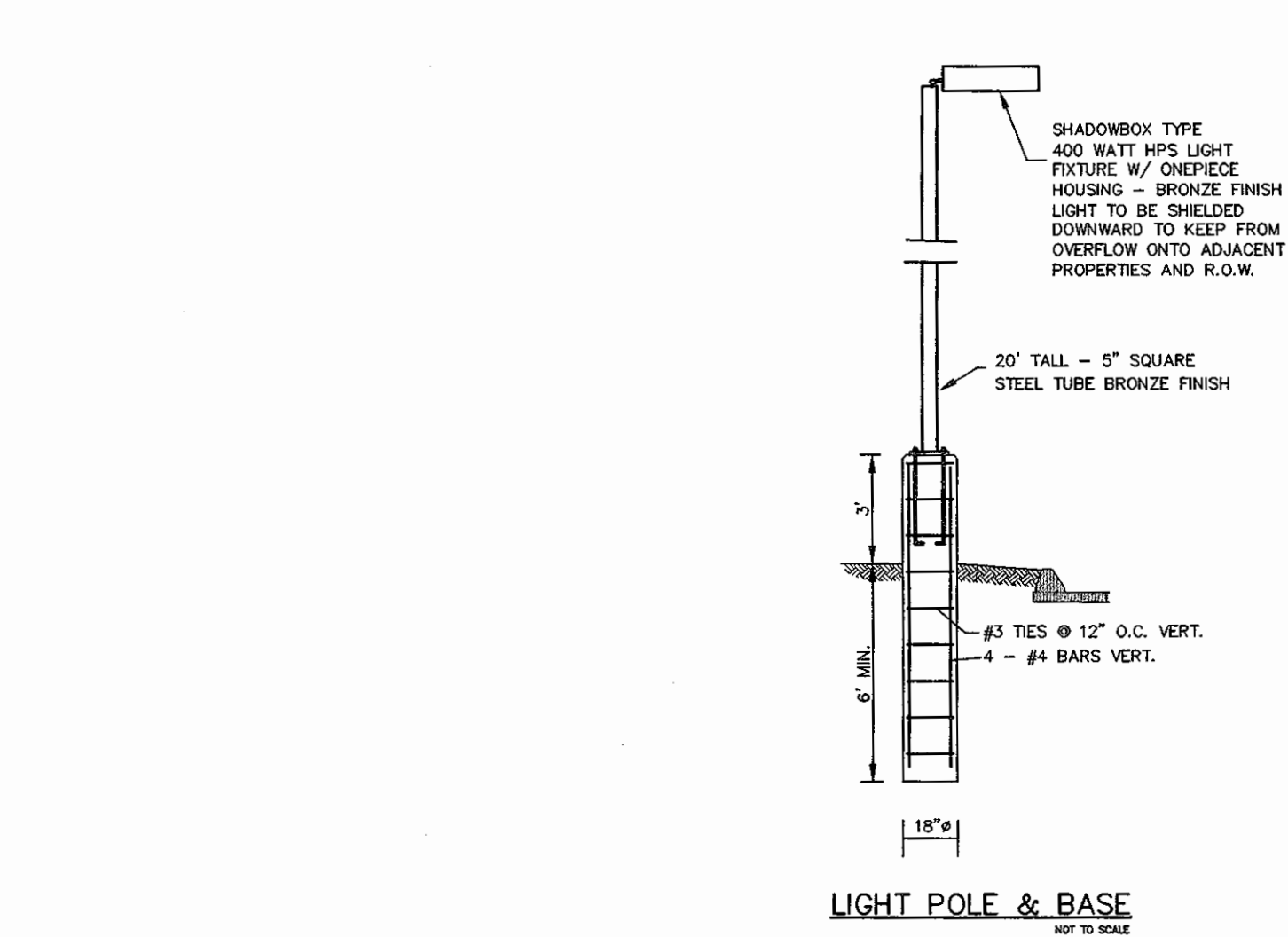


CURB TRANSITION DETAIL



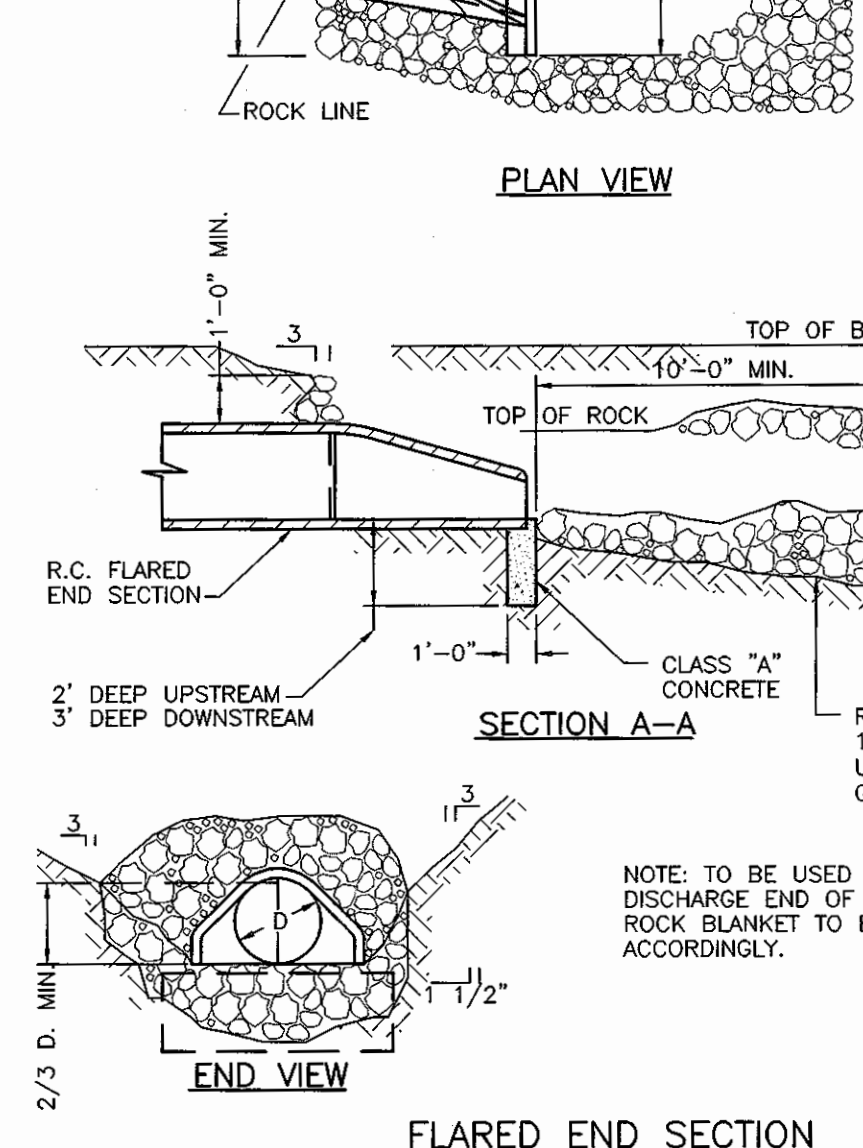
PIPE BOLLARD DETAIL
NOT TO SCALE

NEW FOOTING SHALL BE 3000 P.S.I. CONCRETE TO BE PLACED THE SAME DAY HOLE IS DUG. NO WATER SHALL BE ALLOWED TO ENTER HOLE BEFORE CONCRETE IS PLACED.



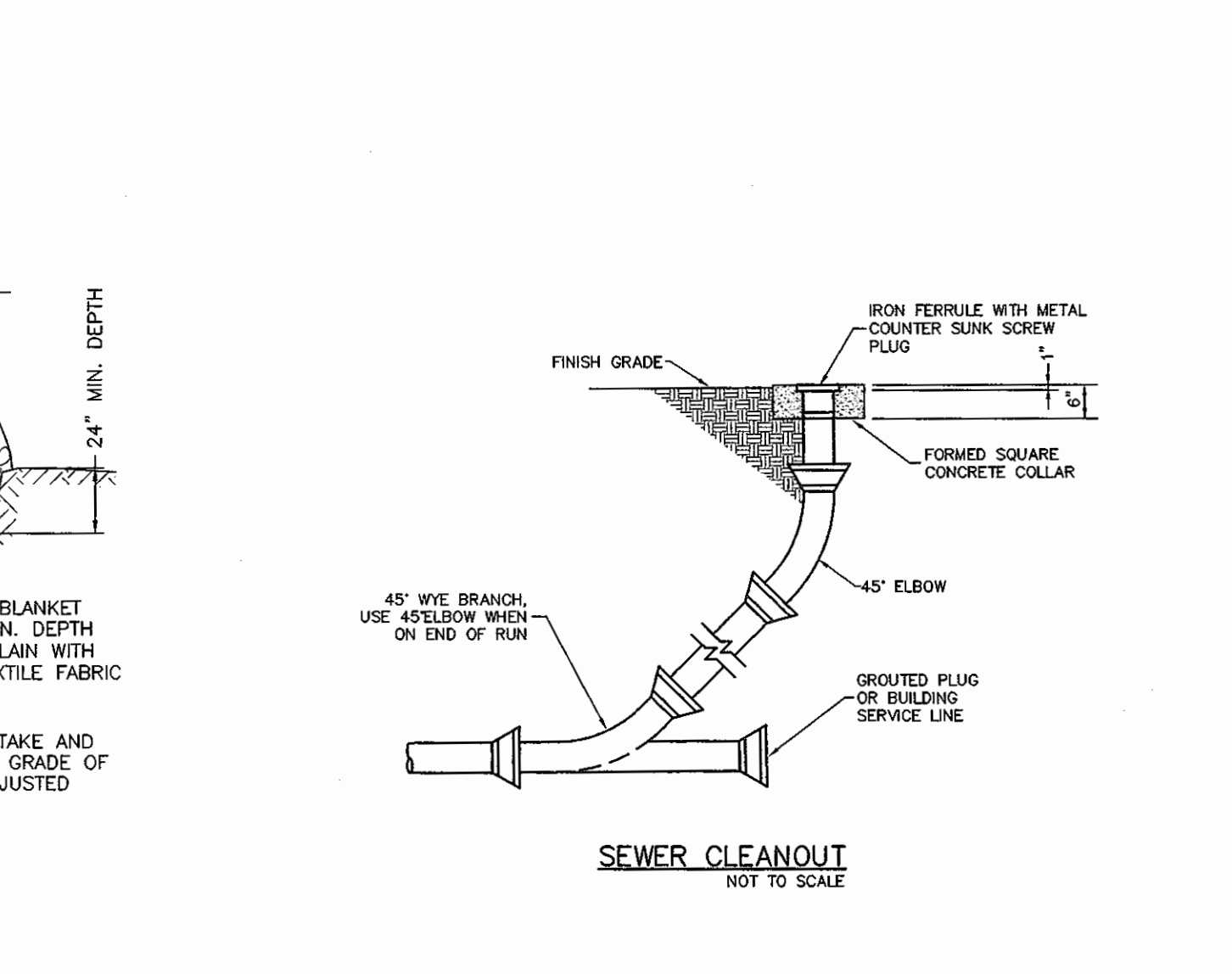
LIGHT POLE & BASE
NOT TO SCALE

SHADOWBOX TYPE 400 WATT HPS LIGHT FIXTURE W/ ONEPIECE HOUSING - BRONZE FINISH LIGHT TO BE SHIELDED DOWNWARD TO KEEP FROM OVERFLOW ONTO ADJACENT PROPERTIES AND R.O.W.



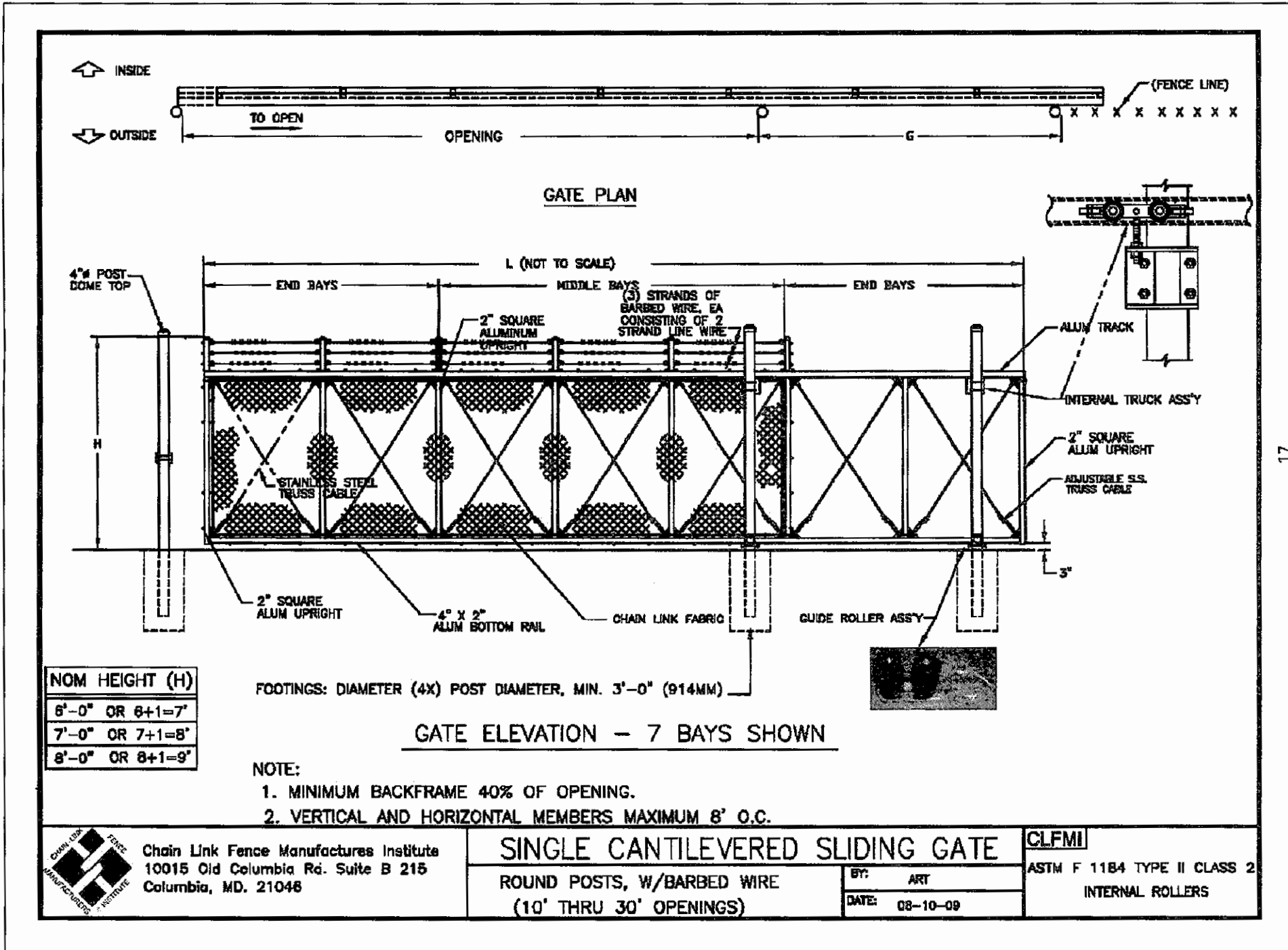
FLARED END SECTION

NOTE: TO BE USED AT INTAKE AND DISCHARGE END OF PIPE. GRADE OF ROCK BLANKET TO BE ADJUSTED ACCORDINGLY.



SEWER CLEANOUT
NOT TO SCALE

IRON FERRULE WITH METAL COUNTER SUNK SCREW PLUG
FORMED SQUARE CONCRETE COLLAR
45° ELBOW
GROUTED PLUG OR BUILDING SERVICE LINE



GATE PLAN

TO OPEN
OPENING
L (NOT TO SCALE)
END BAYS
MIDDLE BAYS
END BAYS

2" SQUARE ALUMINUM UPRIGHT
4" SQUARE ALUMINUM UPRIGHT
CHAIN LINK FENCE
GUIDE ROLLER ASSY.

INTERNAL TRUCK ASSY.
2" SQUARE ALUM UPRIGHT
ADJUSTABLE S.S. TROSS CABLE

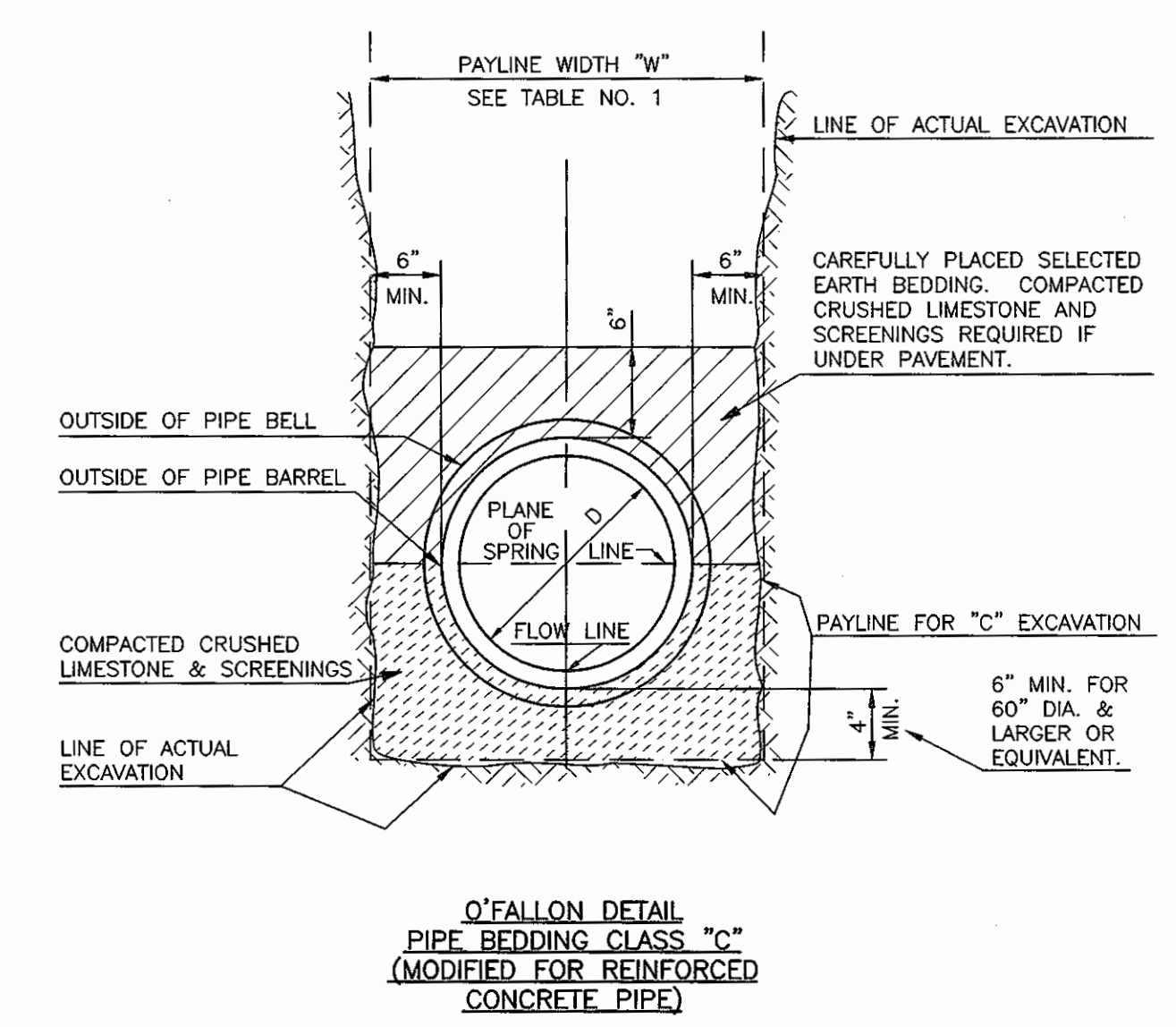
FOOTINGS: DIAMETER (4X) POST DIAMETER, MIN. 3'-0" (914MM)

GATE ELEVATION - 7 BAYS SHOWN

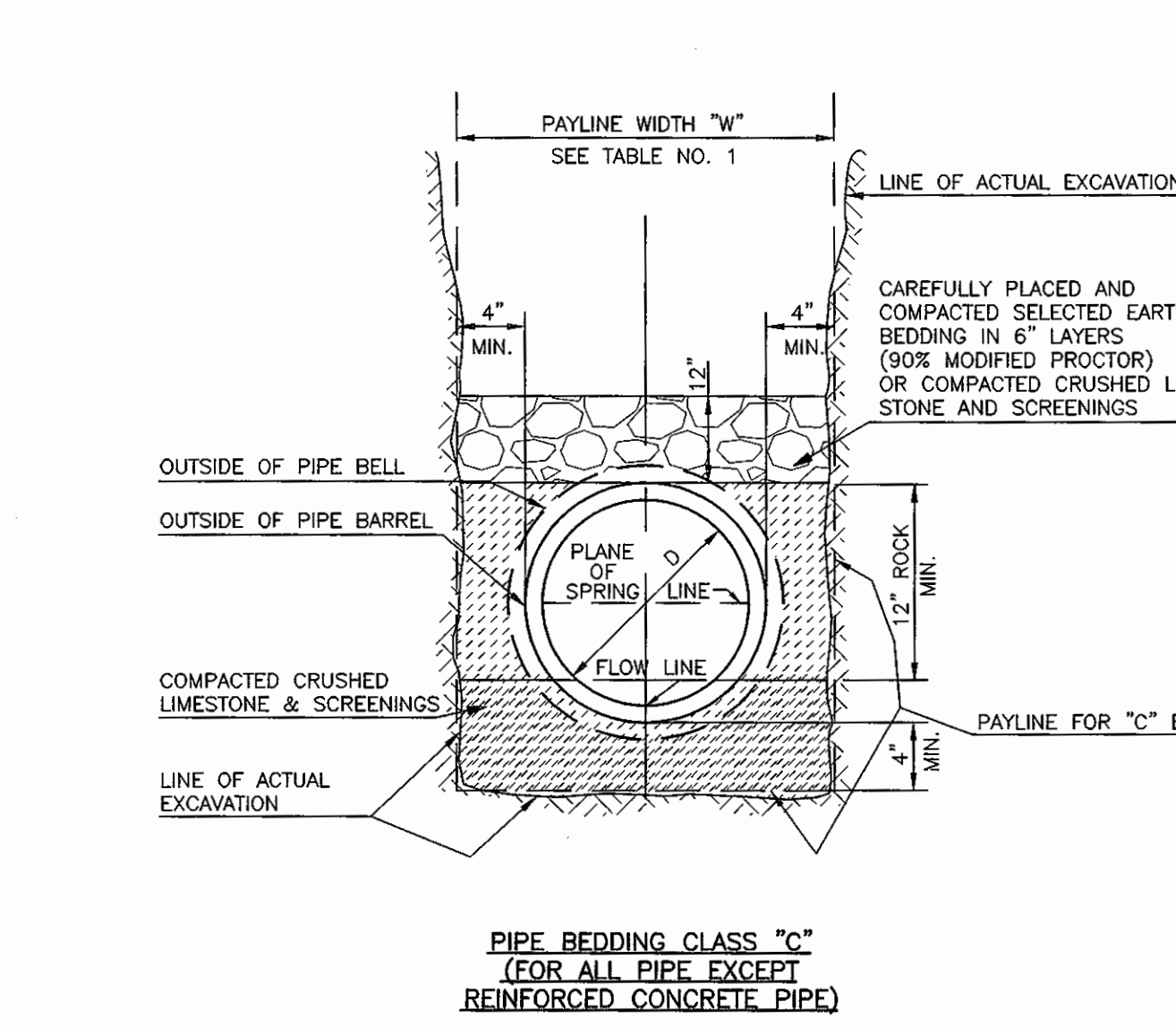
NOTE:
1. MINIMUM BACKFRAME 40% OF OPENING.
2. VERTICAL AND HORIZONTAL MEMBERS MAXIMUM 8' O.C.

Chain Link Fence Manufacturers Institute
10015 Old Columbia Rd. Suite B 215
Columbia, MD. 21046

SINGLE CANTILEVERED SLIDING GATE (CLFMI)
ROUND POSTS, W/BARBED WIRE
(10' THRU 30' OPENINGS)
ASTM F 1184 TYPE II CLASS 2
INTERNAL ROLLERS
DATE: 08-10-08



O'FALLON DETAIL PIPE BEDDING CLASS "C" (MODIFIED FOR REINFORCED CONCRETE PIPE)

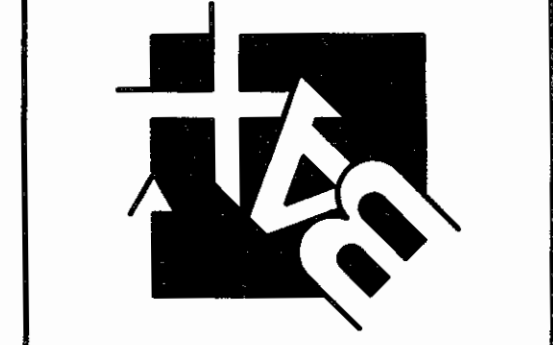


PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)

ENGINEERS SEAL DOES NOT APPLY TO CITY OF O'FALLON DETAILS ON THIS SHEET.

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CITY OF O'FALLON
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I, **LARRY DAVID WALKER**
NUMBER
PE-2007020343
PROFESSIONAL ENGINEER
09/01/16

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08-19-16	CITY COMMENTS
08-31-16	ADDENDUM 1

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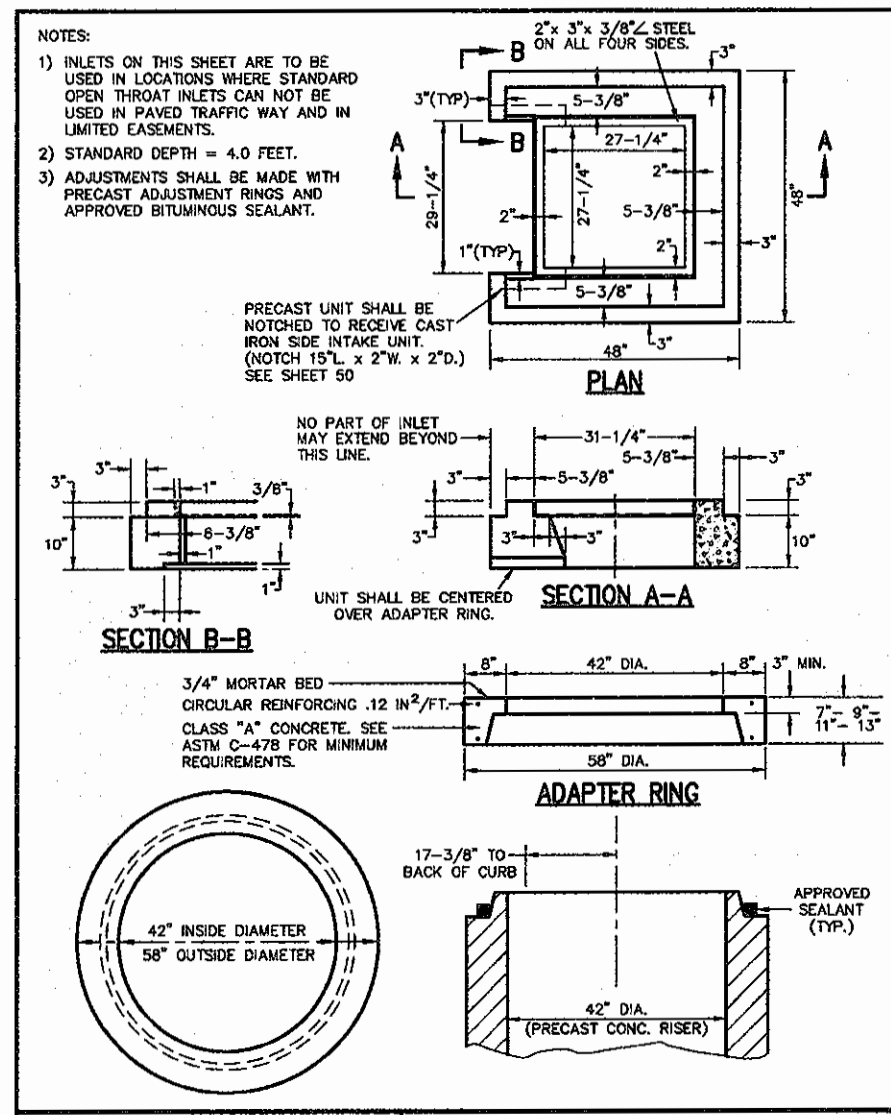
Page No.
9 of 10

DETAILS

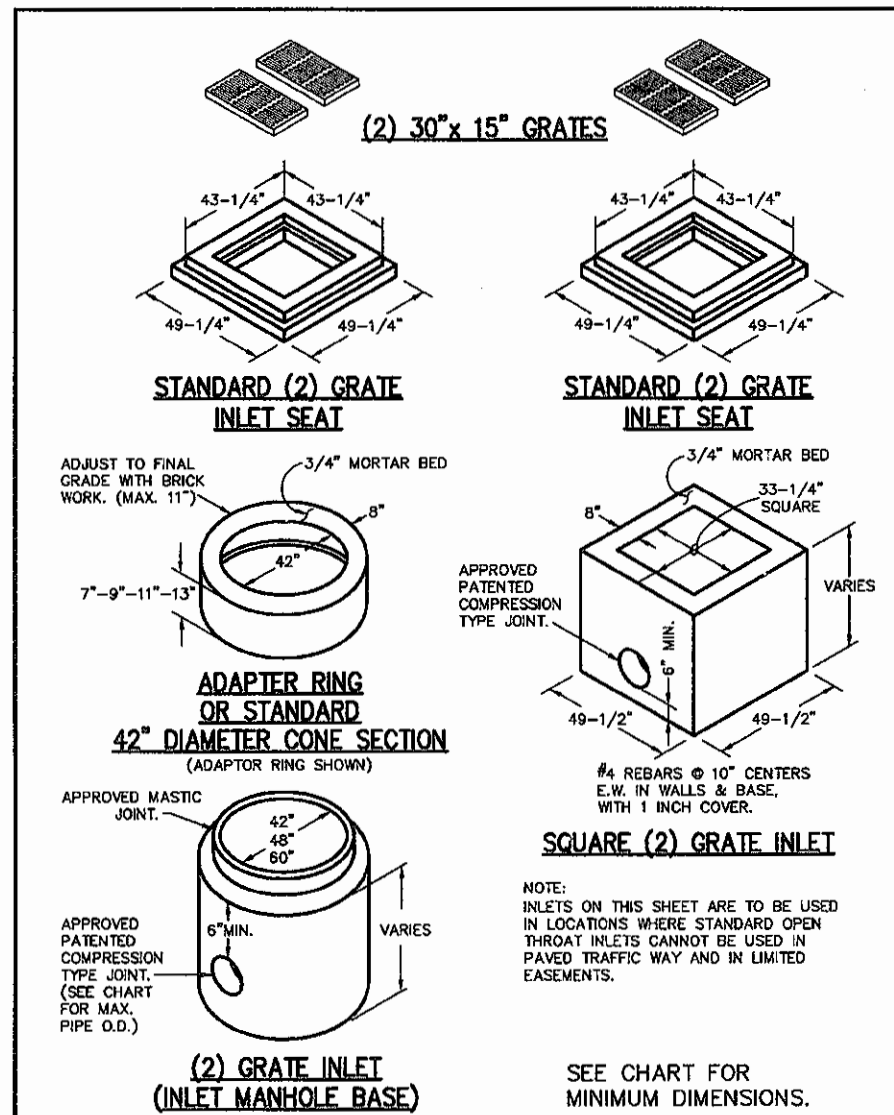
Box Project # 06-18742A Issue Date: 07/22/2016

ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES
4	3.0	2.50	3.25				
6	3.0	2.50	3.25				
8	3.0	2.50	3.25				
10	3.0	2.50	3.25				
12	3.0	2.50	3.25				
15	3.6	3.00	3.75				
18	3.6	3.00	3.75	14 x 23	41	3.42	5.94
21	3.9	3.25	4.00				
24	4.2	3.50	4.25	19 x 30	49	4.08	7.66
27	4.5	3.75	4.50	22 x 34	53	4.42	8.61
30	4.8	4.00	4.75	24 x 38	58	4.83	9.70
33	5.1	4.25	5.00	27 x 41	62	5.17	10.71
36	5.4	4.50	5.25	29 x 45	66	5.50	11.72
39	5.7	4.75	5.50	33 x 49	71	5.92	13.14
42	6.0	5.00	5.75	34 x 53	75	6.25	14.08
48	7.0	5.83	6.67	38 x 60	83	6.92	16.18
54	7.7	6.42	7.25	43 x 68	92	7.67	18.61
60	8.4	7.00	7.75	48 x 76	101	8.43	21.29
66	9.1	7.58	8.33	53 x 83	109	9.08	23.55
72	9.8	8.17	8.92	58 x 91	118	9.83	27.45
78	10.5	8.75	9.50	63 x 98	129	10.50	30.50
84	11.2	9.33	10.08	68 x 106	135	11.25	33.91
90	11.9	9.92	10.67	72 x 113	143	11.92	36.90
96	12.6	10.50	11.25	77 x 121	152	12.67	40.69
102	13.3	11.08	11.83	82 x 128	160	13.33	44.45
108	14.0	11.67	12.42	87 x 136	168	14.00	47.79
114	14.7	12.25	13.00	92 x 143	176	14.67	51.70
120	15.4	12.83	13.58	97 x 151	185	15.42	56.01
126	16.1	13.42	14.17	102 x 158	193	16.17	60.59
132	16.8	14.00	14.75	107 x 166	202	16.83	64.46
144	18.2	15.17	16.00	116 x 180	216	18.17	73.59

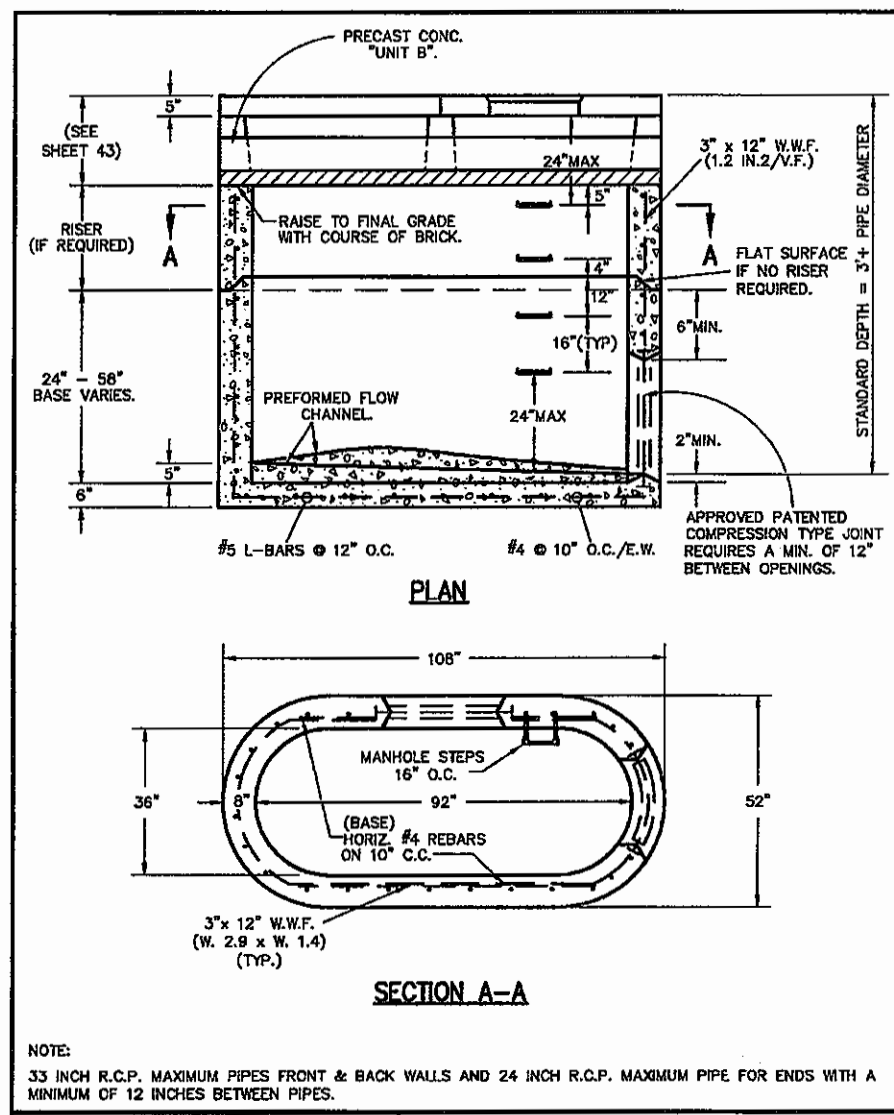
TABLE 1
PAYLINE WIDTHS OF TRENCH
AND PAY-QUANTITIES
OF CONCRETE



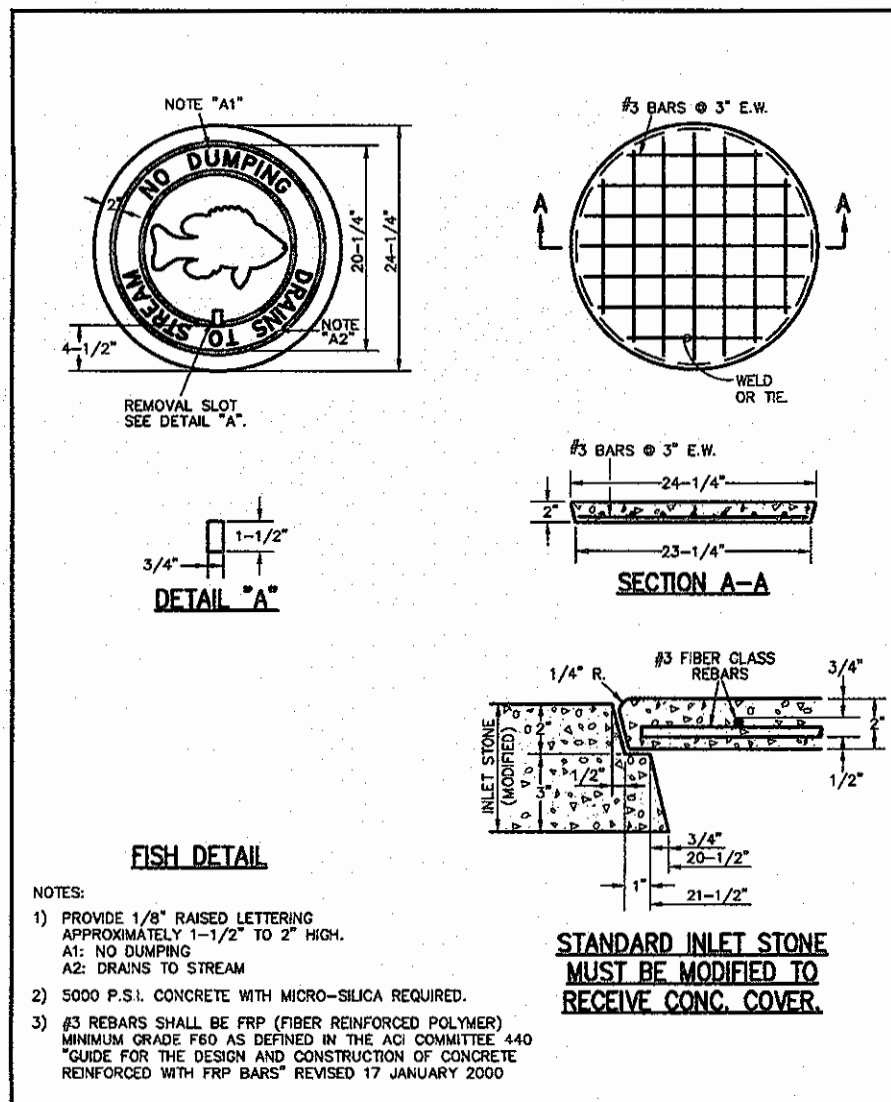
GRATE SEAT FOR 24" INLET WITH SIDE INTAKE



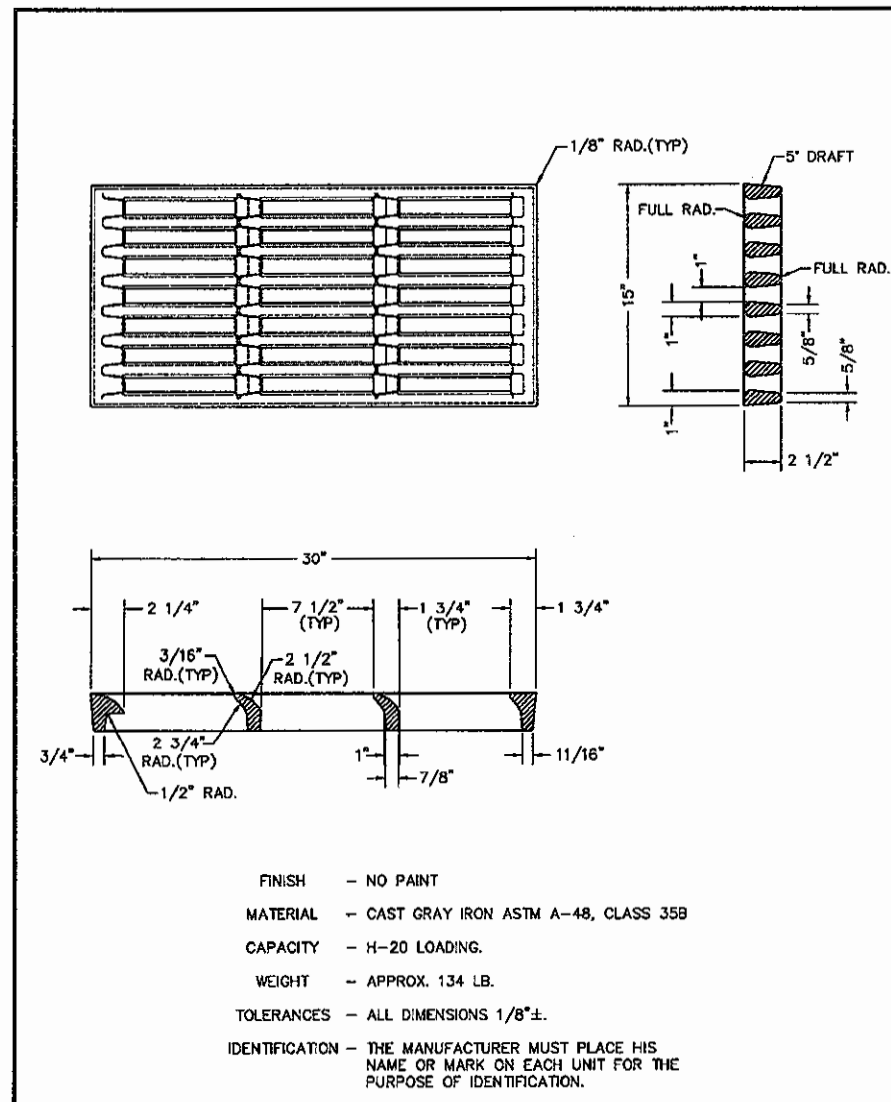
24" DIAMETER GRATE INLET



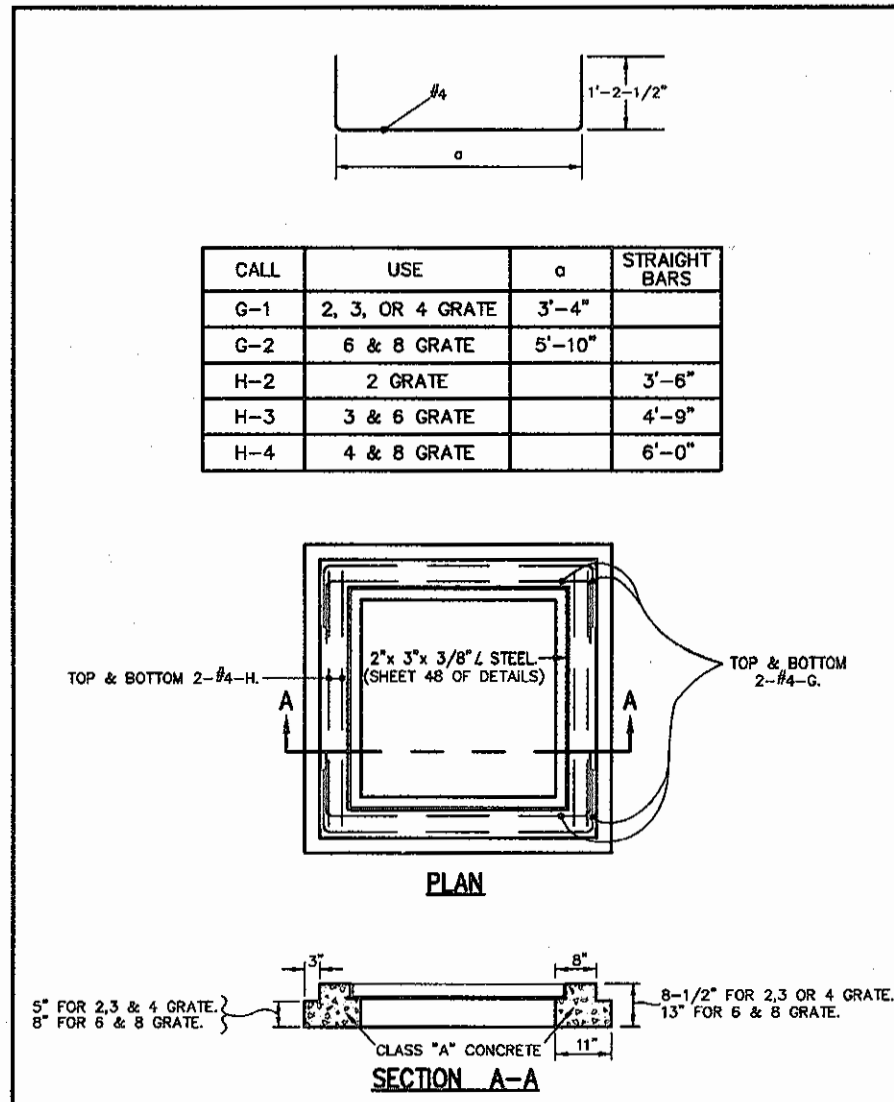
DOUBLE UNTRAPPED STREET INLET



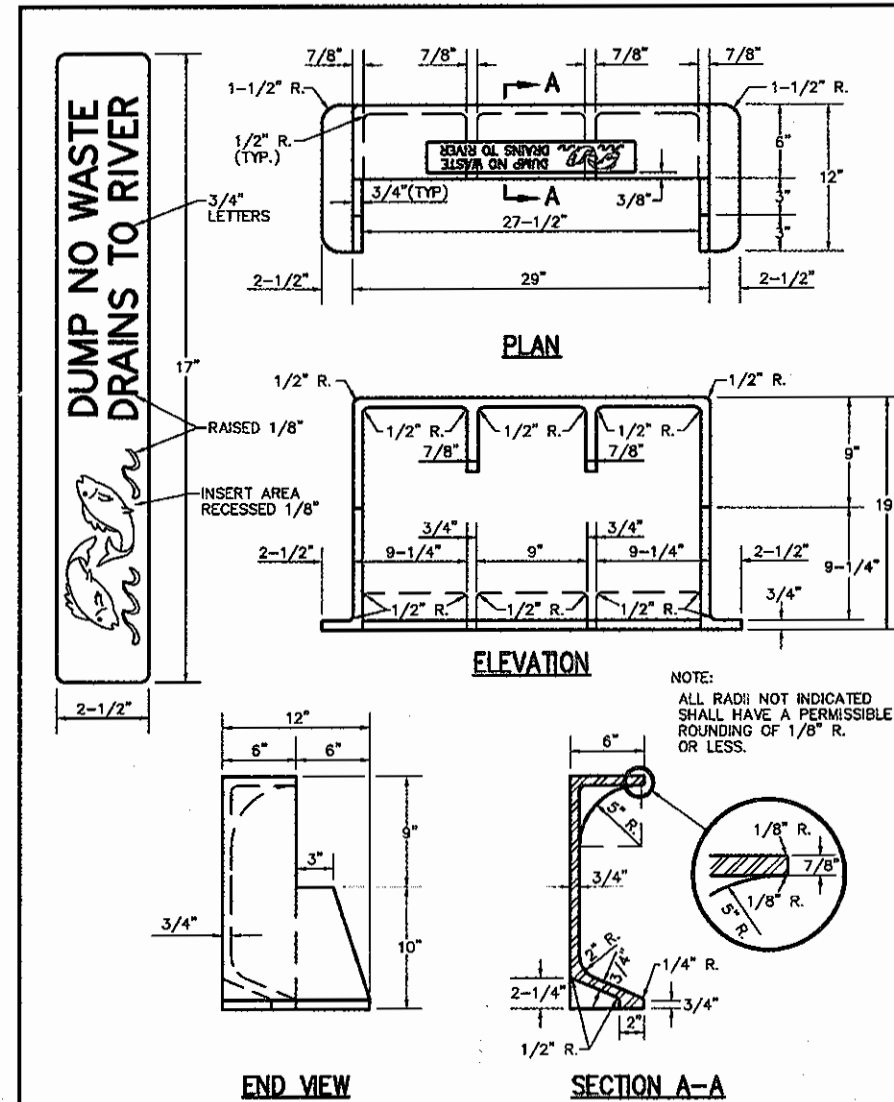
PRECAST CONCRETE INLET COVER & STONE



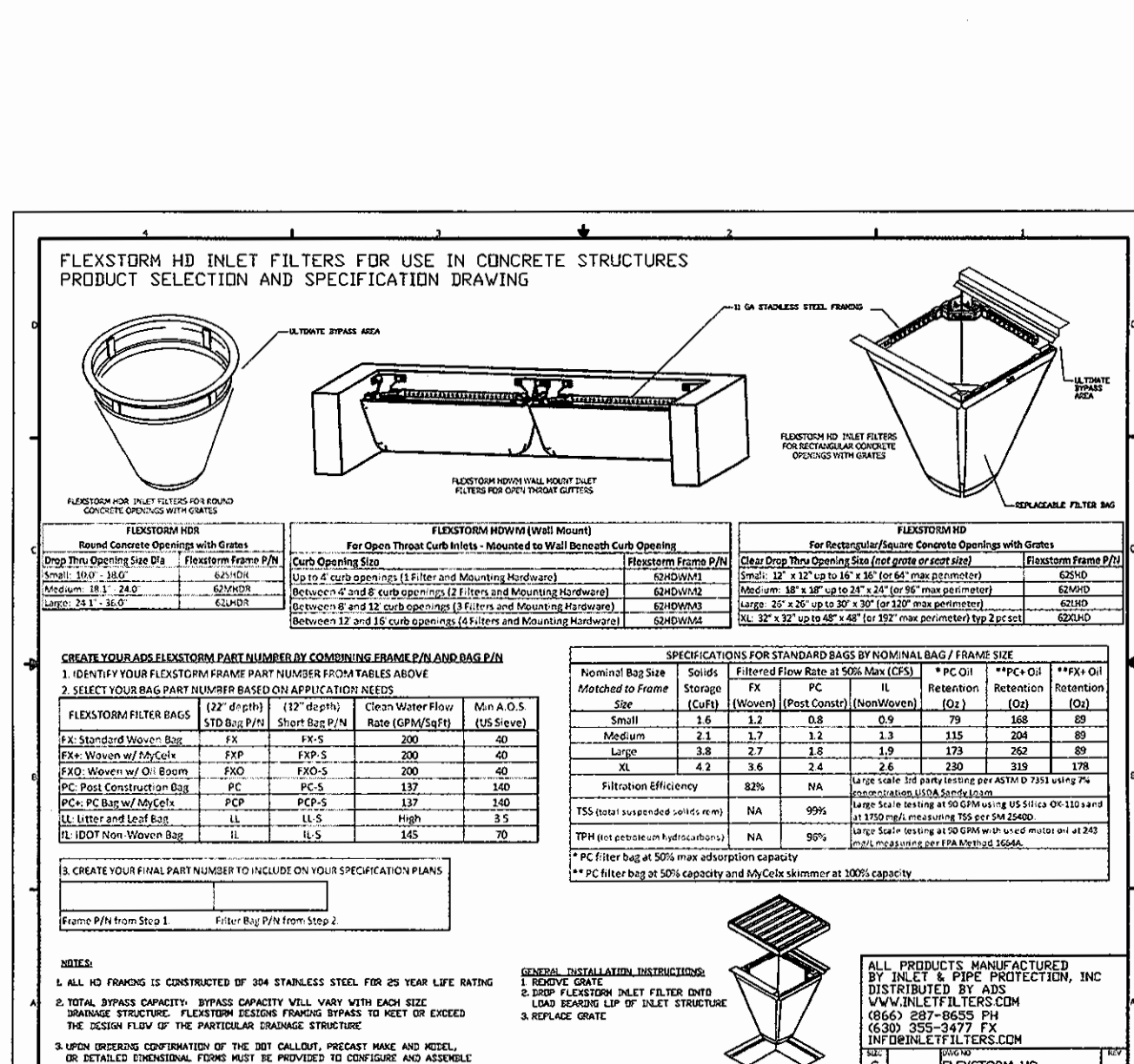
DETAIL OF STEEL VANE GRATE



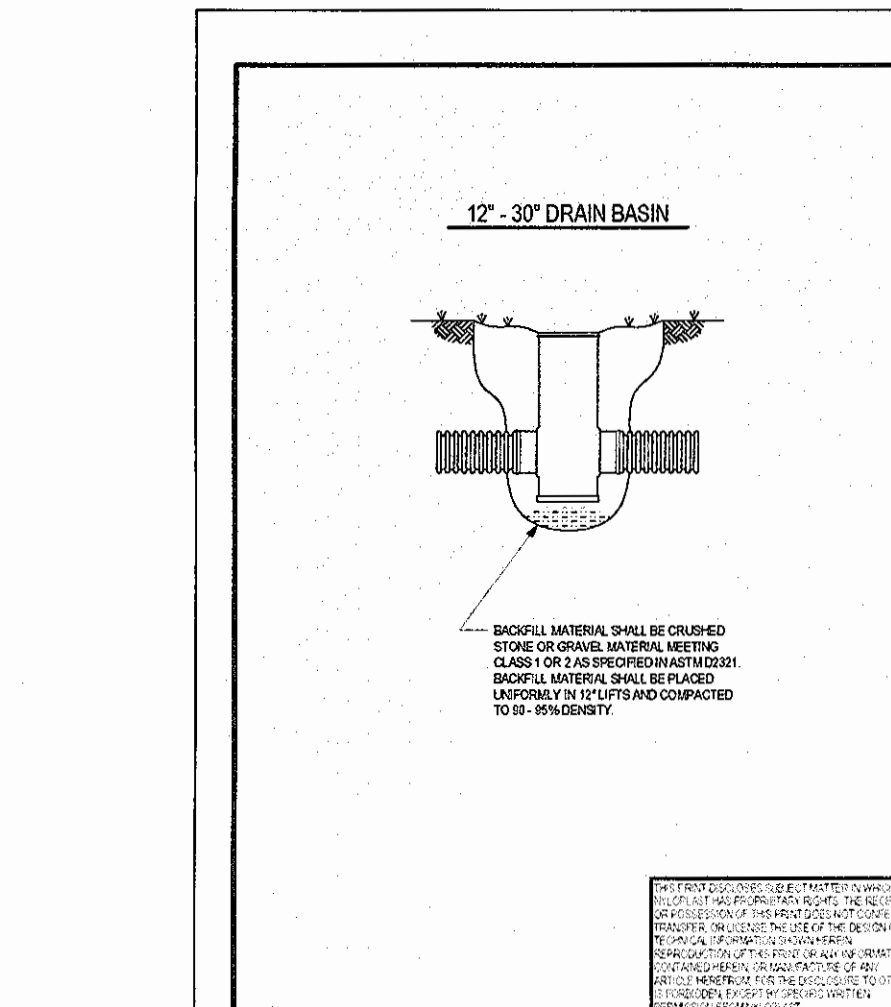
STEEL REQUIREMENTS FOR GRATE INLET SEAT



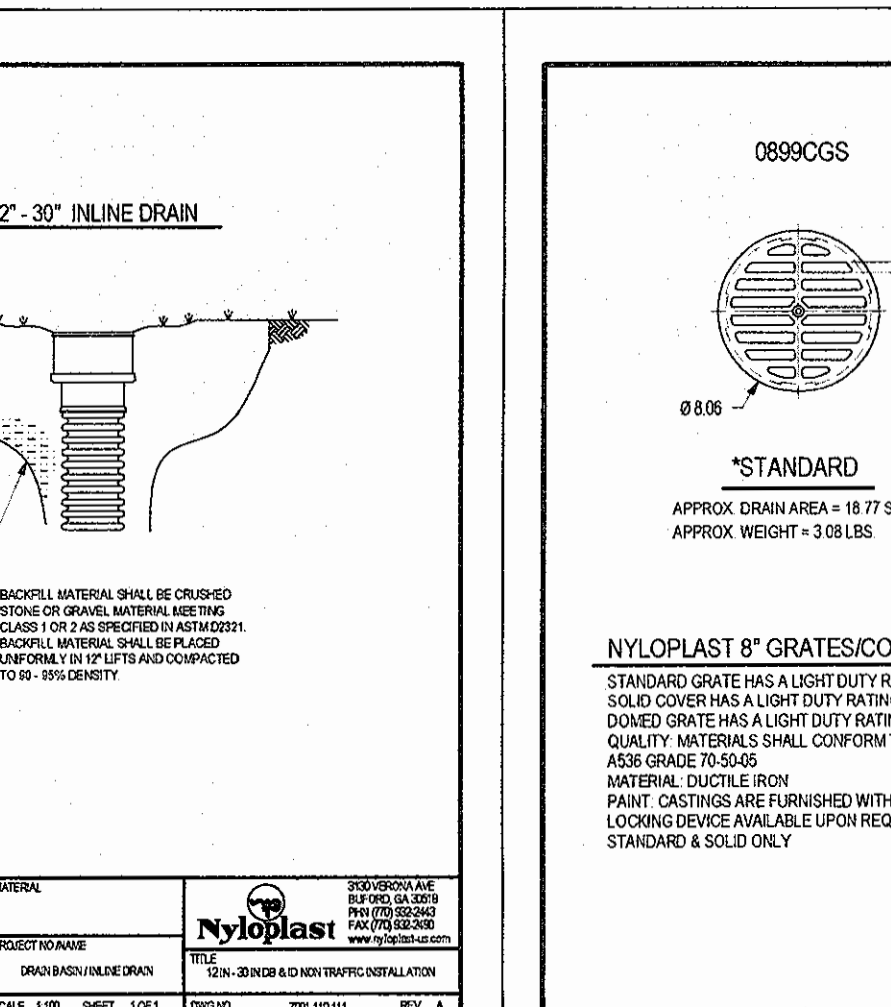
CAST IRON SIDE INTAKE UNIT FOR GRATE INLETS



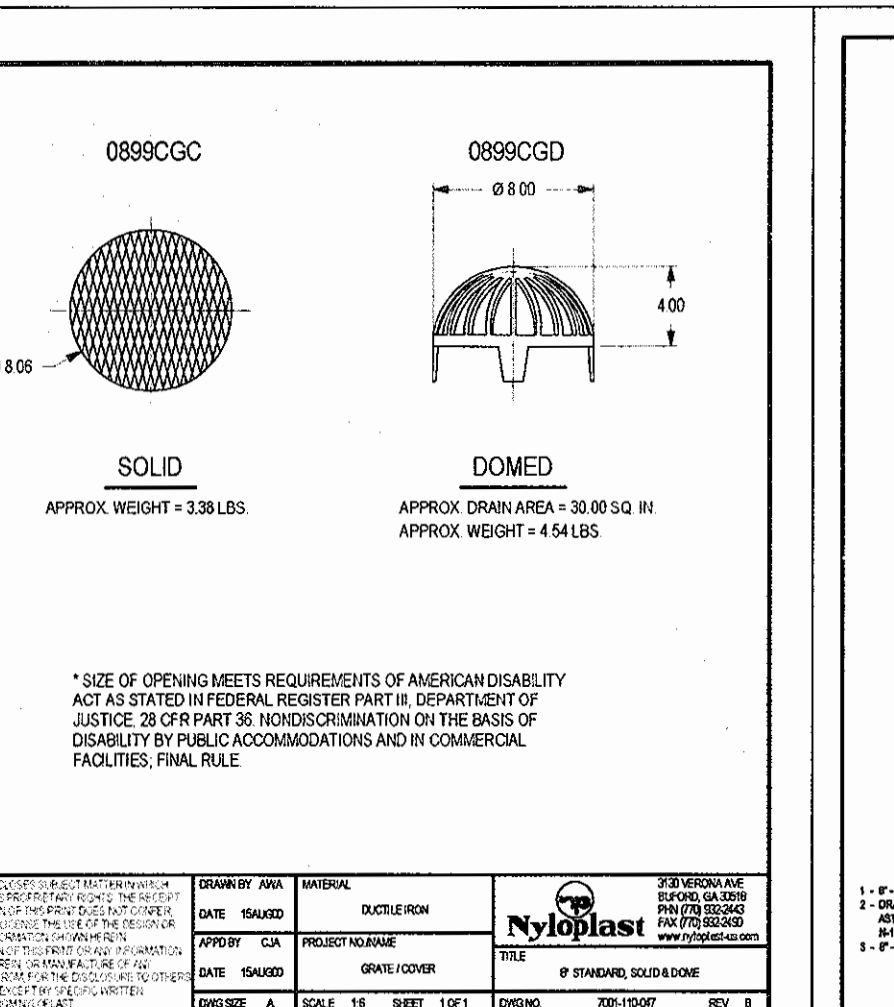
FLEXFORM HD INLET FILTERS FOR USE IN CONCRETE STRUCTURES



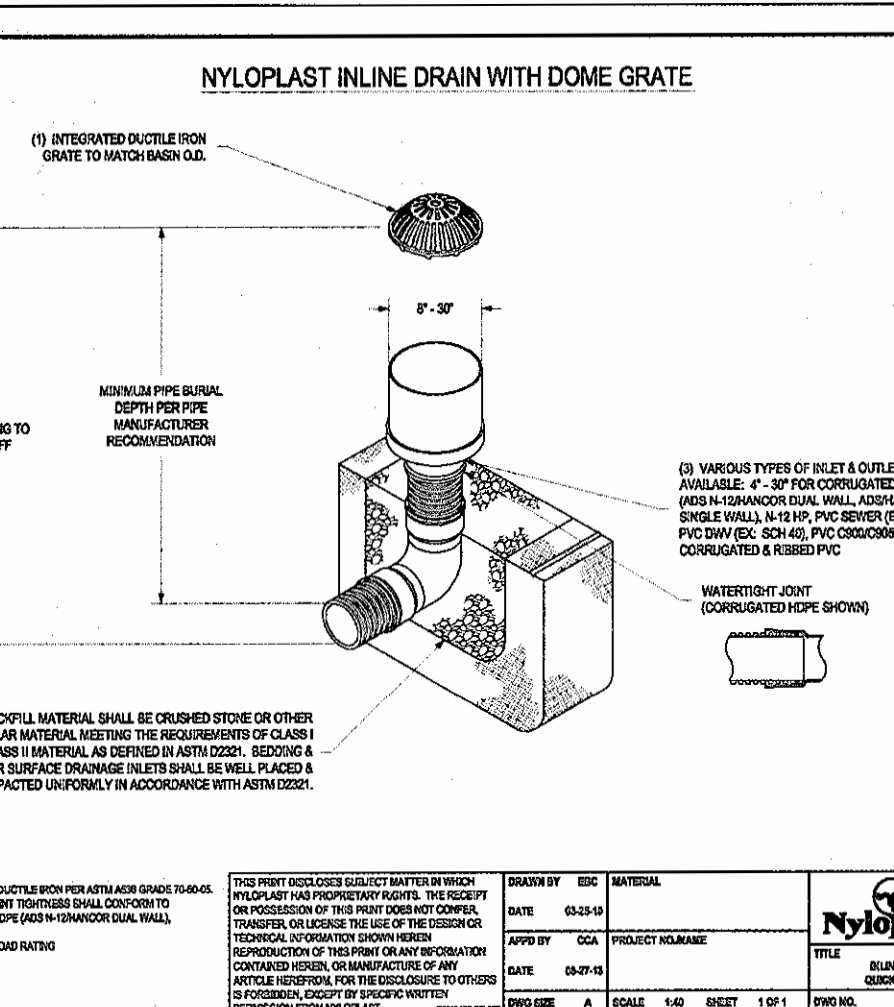
12" x 30" DRAIN BASIN



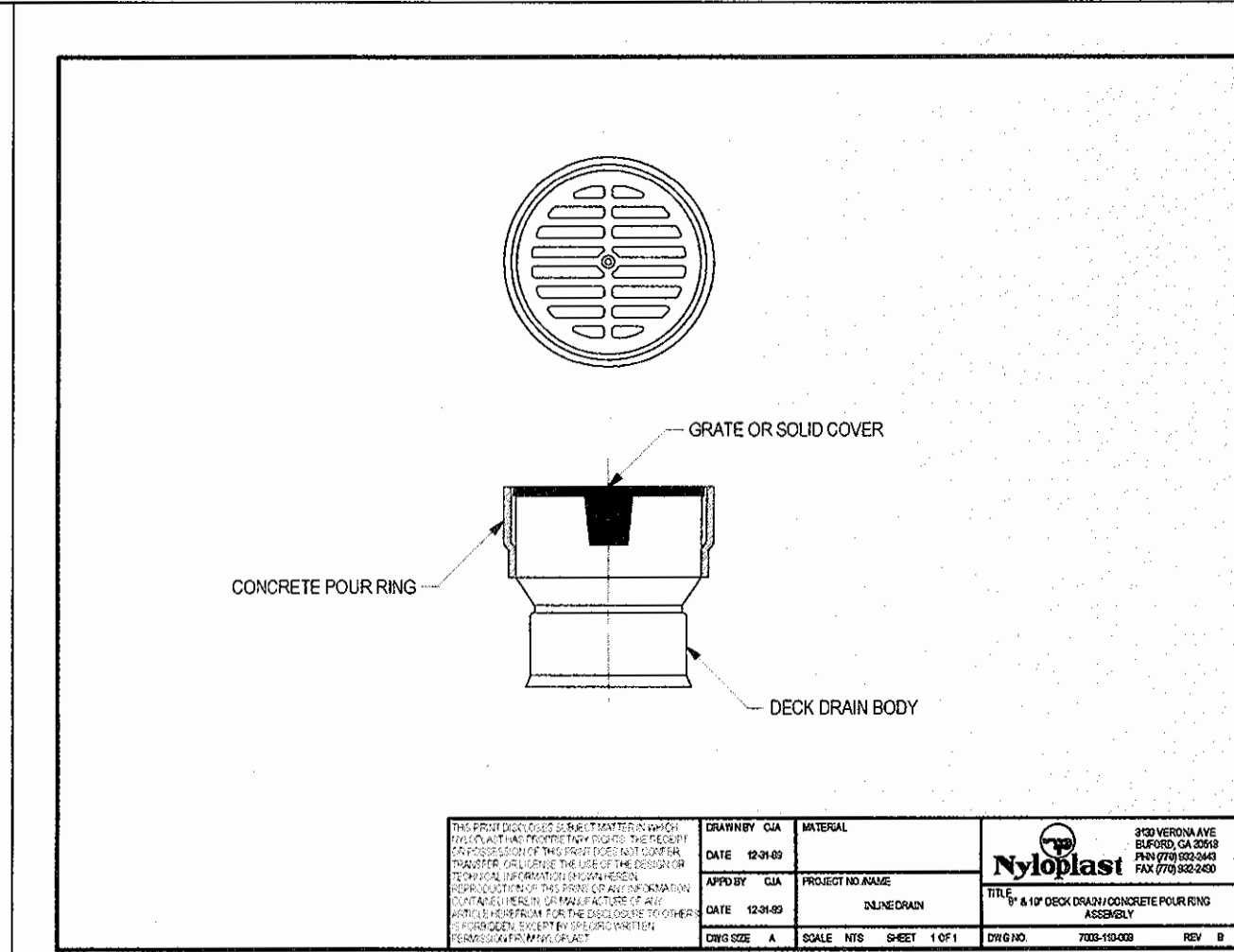
12" x 30" INLINE DRAIN



NYLOPLAST 8" GRATES/COVERS



NYLOPLAST INLINE DRAIN WITH DOME GRATE



CONCRETE POURING RING

ENGINEERS SEAL DOES NOT APPLY TO MSD AND NYLOPLAST DETAILS ON THIS SHEET.

PROJECT TITLE:
RENOVATIONS FOR THE
CITY OF FALLON
ENVIRONMENTAL
SERVICES BUILDING

ENGINEERING
SURVEYING
241 Point West Blvd.
St. Charles, MO 63001
636-626-8656
FAX 636-626-1718

DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project.

REVISIONS
08-19-16 CITY COMMENTS
08-31-16 ADDENDUM 1

Developer / Owner:
CITY OF FALLON
100 N. MAIN STREET
FALLON, MO 63366
636-379-5518

P+Z No. #05-11.01
Approved 06-02-16
City No. #

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